

**CITY OF FAIRFAX
10455 ARMSTRONG STREET
FAIRFAX, VIRGINIA 22030
INVITATION FOR BID**

BID NO.: 15001
BID DATE: June 20, 2014
FOR: Milling and Paving of City Streets (for Fiscal Year 2015)
BID DUE DATE: July 14, 2014 by 4:00 PM

PLACE OF PUBLIC OPENING: City of Fairfax (City Hall Annex Building)
10455 Armstrong Street
Public Works Department, Room 200
Fairfax, VA 22030

MAILING ADDRESS: City of Fairfax (City Hall Annex Building)
10455 Armstrong Street
Public Works Department, Room 200
Fairfax, VA 22030

PURCHASING CONTACT: Jennie Tripoli, Asst. Director of Finance
TELEPHONE: 703-385-3973
EMAIL: Jennie.Tripoli@fairfaxva.gov

PROJECT MANAGER CONTACT: Peter Millard, City Engineer, Public Works
TELEPHONE: 703-249-6330
EMAIL: Peter.Millard@fairfaxva.gov

REQUIRED:

Bid Form – Page 13
Affidavit of No Conflict of Interest - Page 14
Affidavit of No OSHA or VOSH Fines – Page 15
Scope of Work (unit prices required) – Pages 65 and 66
Bid Bond (must be provided with submitted bid package)
Performance and Payment Bonds (shall be provided prior to award of contract)

IF YOU NEED ANY REASONABLE ACCOMMODATION FOR ANY TYPE OF DISABILITY IN ORDER TO PARTICIPATE IN THIS PROCUREMENT, PLEASE CONTACT THIS OFFICE AS SOON AS POSSIBLE.

CITY OF FAIRFAX FAIRFAX, VIRGINIA



INVITATION FOR BID

**MILLING AND PAVING OF CITY STREETS
FOR FISCAL YEAR 2015**

IFB No. 15001

**Prepared by
Department of Public Works**

June 2014

Table of Contents

City of Fairfax Contract Documents	4
Invitation for Bid	5
Information for Bidders	7
Bid Form	13
Affidavit of No Conflict of Interest	14
Affidavit of No OSHA or VOSH Fines	15
Agreement	16
General City Requirements	28
Site Work	32
Earth Work.....	34
Site Drainage and Utility Adjustments.....	38
Roadways and Pavements	40
Concrete	45
Soil Preparation, Seeding and Erosion and Sediment Control	47
Traffic Control and Mobilization	49
Cast-in-Place Concrete.....	50
Scope of Work	65
Additional Requirements.....	67
General Terms and Conditions	69

City of Fairfax Contract Documents

Invitation for Bid

1. The City of Fairfax, Virginia (the City), Department of Public Works (the Department) will receive sealed bids for the **Milling and Paving of City Streets** for the City of Fairfax Fiscal Year 2015 (IFB 15001). The bidder agrees to furnish all materials and labor, and construct, build and in every respect complete, the **Milling and Paving of City Streets** for the City of Fairfax Fiscal Year 2015, plus all associated work, for the City. All materials must be furnished and all work must be done in strict accordance with the *Invitation for Bid*, *Information for Bidders*, *Bid Form*, *Affidavit of No Conflict of Interest*, the *Agreement*, *Special Provisions*, *General Requirements*, and the *Specifications and Drawings* (attached as separate file), the completed bid form of the said bidder, hereto attached and made a part of this agreement; and the plans, documents and codes referred to and made a part of this agreement, and declared and accepted as an essential part of the same (the "Work"). All of said work shall be done and all materials shall be furnished under the supervision and direction of and to the full satisfaction and acceptance of the City or a duly authorized agent thereof.

Project details, bid packages and any addenda can be obtained on the City of Fairfax website at:

<http://www.fairfaxva.gov/government/finance/request-for-proposals-rfp->

2. Sealed bids for this project will be received in the Department office until 4:00 p.m. on July 14, 2014. Bids received after this scheduled closing time will not be considered and will be returned, unopened to the sender.

In accordance with the City of Fairfax Code, Section 2-361 and the Code of Virginia, 1950, Section 2.2-4319, the City reserves the right to cancel this Invitation for Bid and to reject any and all bids when it is determined to be in the best interests of the City to do so.

3. Prior to the award of the contract, the winning bidder submitting a bid amounting to \$70,000 or more shall show evidence of a valid City business license and a license to engage as a Class A contractor in Virginia.
4. No bidder may withdraw its bid after the actual date of opening thereof, except as follows. A bidder may withdraw its bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or unintentional omission of a quantity or of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder must give notice in writing of its claim of right to withdraw its bid within two business days after the conclusion of the bid opening procedure. Any claim of a bidder for withdrawal shall be governed by Section 2.2-4330 of the Code of Virginia, 1950, as amended, and Section 2-351(k) of the Code of the City of Fairfax, which are incorporated herein by reference.

5. In accordance with Section 2.2-4343.1 of the Code of Virginia, the City does not discriminate against faith-based organizations.

In accordance with Section 2.2-3901 of the Code of Virginia, the City does not discriminate on the basis of race, color, religion, national origin, sex, pregnancy, childbirth or related medical conditions, age, marital status or disability.

Information for Bidders

1. To be considered, bids must comply with this Information for Bidders.
2. Bidders shall carefully examine the specifications and the site of construction so they will have first-hand knowledge of the existing conditions and conditions under which the work is to be performed.
3. Requests for clarification or interpretation of the drawings, specifications or other bid documents or shall be addressed in writing to Peter Millard, City Engineer, Department of Public Works, City Hall Annex, 2nd Floor-Room 200, 10455 Armstrong Street, Fairfax, VA 22030 or via email: Peter.Millard@fairfaxva.gov. Replies will be issued as addenda and posted on the City website. The City Engineer and City will not be responsible for oral clarifications and interpretations. Requests received less than five (5) business days before the bid opening date will not be considered nor answered.
4. Bids must include all unit cost items shown on the bid forms. The unit price for each item in the bid form shall include its pro rata share of overhead and profit so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price represents the total bid. Failure to comply may be cause for rejection of the bid. No adjustment in unit prices will be considered except where the estimated quantities shown vary by more than thirty percent (30%) from the actual quantities, unless otherwise provided in the construction contract.
5. Bids must be made on the bid form accompanying the specifications or on copies of the form furnished by the City. All blank spaces must be filled in with ink or typed and one copy submitted. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract. Where the bidder is a general partnership, the bid must be signed with the legal name of the general partnership followed by the name and signature of the general partner(s) of the partnership. Where the bidder is a limited partnership, the bid must be signed with the legal name of the limited partnership followed by the name(s) and the signature(s) of one or more of the general partners of the limited partnership as required by the limited partnership agreement. Where the bidder is a limited liability company, the bid must be signed with the legal name of the limited liability company followed by the name and signature of the managing member of the limited liability company who is identified in the articles of organization for the limited liability company.
6. Completed bid forms must be submitted in a sealed envelope addressed to the Department of Public Works, City Hall Annex, 2nd Floor-Room 200, 10455 Armstrong Street, Fairfax, Virginia 22030, and bearing the bidder's business name and address and registered Virginia contractor number. Envelopes shall be clearly marked with the project name and number as shown on the Invitation for Bid.
7. Bids will be awarded in accordance with City Code Section 2 – 351, Competitive Sealed Bidding. The City reserves the right to reject all bids, if the apparent lowest bid exceeds the funding available for this project.

8. Bid Bonds

- A. Except in cases of emergency, all bids for non-transportation related construction contracts in excess of \$500,000 or transportation related projects authorized under § 33.1-12 that are in excess of \$250,000 and partially or wholly funded by the Commonwealth shall be accompanied by a bid bond from a surety company selected by the bidder that is authorized to do business in Virginia, as a guarantee that if the contract is awarded to the bidder, he will enter into the contract for the work mentioned in the bid. The amount of the bid bond shall not exceed five percent (5%) of the amount bid.
- B. For non-transportation related construction contracts in excess of \$100,000 but less than \$500,000, where the bid bond requirements are waived, prospective contractors shall be prequalified for each individual project in accordance with § 2.2-4317.
- C. No forfeiture under a bid bond shall exceed the lesser of (i) the difference between the bid for which the bond was written and the next low bid, or (ii) the face amount of the bid bond.
- D. Nothing in this section shall preclude a public body from requiring bid bonds to accompany bids for construction contracts anticipated to be less than \$500,000 for non-transportation related projects or \$250,000 for transportation-related projects authorized under § 33.1-12 and partially or wholly funded by the Commonwealth.

9. Performance and Payment Bonds

- A. Except as provided in subsection H, upon the award of any (i) public construction contract exceeding \$500,000 awarded to any prime contractor; (ii) construction contract exceeding \$500,000 awarded to any prime contractor requiring the performance of labor or the furnishing of materials for buildings, structures or other improvements to real property owned or leased by a public body; (iii) construction contract exceeding \$500,000 in which the performance of labor or the furnishing of materials will be paid with public funds; or (iv) transportation-related projects exceeding \$350,000 that are partially or wholly funded by the Commonwealth, the contractor shall furnish to the public body the following bonds:
 - 1. A performance bond in the sum of the contract amount conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications and conditions of the contract. For transportation-related projects authorized under § 33.1-12, such bond shall be in a form and amount satisfactory to the public body.
 - 2. A payment bond in the sum of the contract amount. The bond shall be for the protection of claimants who have and fulfill contracts to supply labor or materials to the prime contractor to whom the contract was awarded, or to any subcontractors, in furtherance of the work provided for in the contract, and shall be conditioned upon the prompt payment for all materials furnished or labor supplied or performed in the furtherance of the work. For transportation-related projects authorized under

§ 33.1-12 and partially or wholly funded by the Commonwealth, such bond shall be in a form and amount satisfactory to the public body.

"Labor or materials" shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site.

- B. For nontransportation-related construction contracts in excess of \$100,000 but less than \$500,000, where the bid bond requirements are waived, prospective contractors shall be prequalified for each individual project in accordance with § 2.2-4317.
 - C. Each of the bonds shall be executed by one or more surety companies selected by the contractor that are authorized to do business in Virginia.
 - D. If the public body is the Commonwealth, or any agency or institution thereof, the bonds shall be payable to the Commonwealth of Virginia, naming also the agency or institution thereof. Bonds required for the contracts of other public bodies shall be payable to such public body.
 - E. Each of the bonds shall be filed with the public body that awarded the contract, or a designated office or official thereof.
 - F. Nothing in this section shall preclude a public body from requiring payment or performance bonds for construction contracts below \$500,000 for nontransportation-related projects or \$350,000 for transportation-related projects authorized under § 33.1-12 and partially or wholly funded by the Commonwealth.
 - G. Nothing in this section shall preclude the contractor from requiring each subcontractor to furnish a payment bond with surety thereon in the sum of the full amount of the contract with such subcontractor conditioned upon the payment to all persons who have and fulfill contracts that are directly with the subcontractor for performing labor and furnishing materials in the prosecution of the work provided for in the subcontract.
 - H. The performance and payment bond requirements of subsection A for transportation-related projects that are valued in excess of \$250,000 but less than \$350,000 may only be waived by a public body if the bidder provides evidence, satisfactory to the public body, that a surety company has declined an application from the contractor for a performance or payment bond.
- 10. The City of Fairfax may waive any informalities or minor defects or reject any and all bids. Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified in the Invitation for Bid for bid opening will not be considered nor answered and returned unopened.
 - 11. If required, it shall be the responsibility of each bidder to satisfy the City of Fairfax as to its ability, financial and otherwise, to carry out the work.
 - 12. The "Affidavit of No Conflict of Interest" form included in these bid documents shall be
-

executed and attached to the bidder's submitted bid package. Failure to comply may be cause for rejection of the bid.

13. Employment discrimination by the bidder is prohibited.
14. Submitted bids shall be good for one hundred twenty (120) days from the bid opening date.
15. All work and materials not otherwise described shall be of acceptable quality and should any workmanship or materials be needed which are not directly or indirectly set forth in these specifications, but are nevertheless necessary to the proper execution according to the obvious intent thereof, the bidder shall understand the same to be implied and shall provide for it in its bid as fully as if it were particularly described. The bidder shall, if requested, furnish satisfactory evidence as to the kind and quality of materials.
16. The bidder shall keep the premises neat and orderly at all times consistent with the nature of its operations. When its work is completed, it shall at once remove from the premises all tools and equipment belonging to it and all rubbish that was created from the project.
17. The bidder shall satisfy all applicable federal requirements with respect to the bid, award and performance of the contract.
18. Modification of the Awarded Contract
 - A. A public contract may include provisions for modification of the contract during performance, but no fixed-price contract may be increased by more than twenty-five percent of the amount of the contract or \$50,000, whichever is greater, without the advance written approval of the Governor or his designee, in the case of state agencies, or the governing body, in the case of political subdivisions. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of a bidder from the consequences of an error in its bid or offer.
 - B. Any public body may extend the term of an existing contract for services to allow completion of any work undertaken but not completed during the original term of the contract.
 - C. Nothing in this section shall prevent any public body from placing greater restrictions on contract modifications.
19. Notes
 - A. All work shall conform to the latest editions of the Virginia Department of Transportation (VDOT) Road and Bridge Specifications, the VDOT Road and Bridge Standards, MUTCD and Virginia Work Area Protection Manual, in effect on the bid date, as applicable.
 - B. The City of Fairfax reserves the right to reduce and/or exclude any of the quantities in

- the Bid Form up to the maximum funding available.
- C. No testing work is to be performed without prior written authorization from the City.
 - D. The unit prices shall be applied to changes in the work as additions or deletions, except as provided for in the bid documents.
 - E. The Contractor will be responsible for any damage to property, real or personal, caused by the negligence of the Contractor or its employees, agents or subcontractors.
 - F. Allowable working hours within the City right of way are between 9 am and 3 pm, Monday through Friday. All requests for exceptions must be pre-approved by the City. Working hours on site are between 7 am and 6 pm weekdays and 8:30 am to 5 pm on Saturday. Work is not permitted on Sunday.
 - G. Contractor must have prior approval for material storage areas and commercial vehicle parking from the City of Fairfax or a private property owner as applicable. Contractor shall show written evidence of approval for use of private property.
 - H. Traffic control per the latest MUTCD, Part VI, 2003, shall be provided by the Contractor. Cost for this item shall be included in overall compensation for work items, unless included as a separate item on the attached bid form.
 - I. All road cuts shall be temporarily or permanently patched at the end of workday with an approved asphalt concrete material and tested (Sec. 211 VDOT Road and Bridge Specifications).

The undersigned bidder agrees, if awarded the contract, it will commence actual physical work within 15 days from date of receipt of written notice to proceed, and further states that it will complete the work in all respects in accordance with the bid documents and the Time of Completion section outlined in the Agreement, plus the number of calendar days granted by the City of Fairfax for any extension of time.

The undersigned bidder agrees to accept the provisions of the Information to Bidders regarding disposition of bid security; to enter into and execute a contract, if awarded on the basis of the bid; to furnish bonds in accord with the contract documents, and to complete the work in the stipulated time and in accord with the contract documents. We agree to hold our bid open for one hundred twenty (120) days from this date.

	FIRM:	_____
	By:	_____
_____ (seal)	Print Name:	_____
	Title:	_____
	Date:	_____

Bid Form

Project: **IFB # 15001**
 Milling and Paving of City Streets (for the City of Fairfax Fiscal Year 2015)

City of Fairfax
Dept. of Public Works
City Hall Annex, 2nd Floor, Room 200
10455 Armstrong St
Fairfax, VA 22030

Bid Due Date: July 14, 2014

Bid Due Time: 4:00 p.m.

We have received the above-referenced project documents consisting of the Invitation for Bid, Information to Bidders, Bid Form, Affidavit of No Conflict of Interest, Affidavit of OSHA or VOSH Fines, the Construction Agreement Contract, General Requirements, Scope of Work and Additional Requirements as furnished by the City of Fairfax, Department of Public Works. We have also received addenda number(s) _____ and have included their provisions in our bid. We have examined both the documents and the site and hereby propose to furnish all labor, materials, equipment and incidentals and to perform all operations necessary and required for the successful completion of the project for the sum of \$_____ for the work, in place and complete.

The undersigned acknowledges that he has read the "Information to Bidders" and is aware that the provisions and regulations of the following are applicable to the project:

- (a) City of Fairfax Code, Chapter 2, Sections 2-321 through 2-409.
- (b) 1950 Code of Virginia, Sections 2.2-4300et seq., as amended.

CONTRACTOR'S NAME: _____

By: _____

Signature

Print Name

Title: _____ Date: _____

Address: _____

City/State: _____ Zip Code _____

Telephone: _____ Fax: _____

E-mail: _____

Virginia Contract's License Number: _____

WITNESS:

Please mark which is appropriate for this company:

____ Corporation ____ Partnership ____ Individual

State of incorporation or organization: _____

Date: _____

Affidavit of No Conflict of Interest

The undersigned, being duly sworn, hereby affirms and says that no employee, official or elected officer of the City of Fairfax has a proprietary interest in the company, corporation, partnership or other organization furnishing the goods and/or services under the above-referenced contract, or stands to benefit personally from the furnishing of such goods or services as referenced above. The undersigned hereby further affirms that he or she is fully and duly authorized by appropriate corporate/ partnership/limited liability company proceedings to make this oath on behalf of the corporation/partnership/limited liability company.

FIRM: _____

_____(seal) By: _____

Print Name: _____

Title: _____

Date: _____

ATTEST:

Secretary

STATE OF _____

COUNTY/CITY OF _____, To-Wit:

Subscribed and sworn this _____ day of _____, 20__.

Notary Public

My commission expires: _____

Affidavit of No OSHA or VOSH Fines

The undersigned, being duly sworn, hereby affirms and says that there have been no fines issued by the OSHA or VOSH (Virginia Occupational Safety and Health) against this company and that no such fines are pending at this time.

The undersigned hereby further affirms that he or she is fully and duly authorized by appropriate corporate/ partnership/limited liability company proceedings to make this oath on behalf of the corporation/partnership/limited liability company.

_____ (seal)

FIRM: _____

By: _____

Print Name: _____

Title: _____

Date: _____

ATTEST:

Secretary

STATE OF _____

COUNTY/CITY OF _____, To-Wit:

Subscribed and sworn this _____ day of _____, 20__.

Notary Public

My commission expires: _____

Agreement

THIS AGREEMENT, made and entered into this ____ day of _____, 2014 by and between, the City of Fairfax, Virginia, a Virginia municipal corporation and owner, hereinafter called "the City," party of the first part, and _____, party of the second part, hereinafter called "Contractor."

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. WORK TO BE DONE

The Contractor agrees to furnish all materials and labor and construct, build and in every respect complete, the work as described in the Invitation for Bid for the City, all materials to be furnished and all work to be done in strict accordance with the "Instructions to Bidders," "Invitation for Bid," "General Requirements," "Additional Requirements" and the bid of the said Contractor, hereto attached and made a part of this agreement. All of said work shall be done and all materials furnished under the supervision and direction of and to the full satisfaction and acceptance of the City or a duly authorized agent thereof.

2. EXPLANATION

The City shall furnish the Contractor such further drawings and/or explanations as may be necessary to detail and illustrate the work to be done, and the Contractor shall conform to the same as part of its contract, so far as they may be consistent with the original drawings and specifications. All drawings and specifications are, and shall remain, the property of the City.

3. PAYMENTS

Contractors have two options for submitting invoices for payment to the City. All invoices and statements must reference the Purchase Order number.

Option #1 Invoices for payment may be emailed. Please email the invoice to both of the following email addresses:

AccountsPayable@fairfaxva.gov
Pamela.Petrie@fairfaxva.gov

Option #2 Invoices for payment may be mailed. Please mail the invoice to both of the following addresses:

Original Invoice

City of Fairfax
Attn: Accounts Payable
10455 Armstrong Street
Fairfax, VA 22030

Invoice Copy

City of Fairfax
Attn: Public Works Department
10455 Armstrong Street, Room 200
Fairfax, VA 22030

****PLEASE NOTE: The City may pay some or all invoices via Purchase Cards (MasterCard)****

It is mutually agreed that the Contractor shall receive as full compensation for the herein described work a sum equal to the value of the work done based on the Bidder's Proposal, attached hereto and made a part of this contract.

Payment shall be made to the Contractor monthly to the value of ninety-five percent (90%) of the work done and material on the ground as certified by the Director of Public Works (the Director) or his designee and the remaining ten percent (10%) – Retainage Fee, shall be paid to the Contractor thirty (30) days after the completion and acceptance of the entire work herein contracted for.

4. PAYMENTS NO EVIDENCE OF PERFORMANCE

It is mutually agreed further between the parties hereto, that no certificate given or payment made under this contract, except the final certificate or final payment, shall be evidence of the performance of this contract, either wholly or in part, and that no payment shall be construed to be an acceptance of defective work or improper materials.

5. WARRANTY

The Contractor warrants that the work has been performed in a good and workmanlike-manner, and the Contractor warrants that the work shall be free from maintenance or repairs for a period of one (1) year from the date the retainage described in Section 3 is released (the "Warranty Period"). During the Warranty Period, the Contractor will, at the request of the City, correct any defects in the work due to faulty materials or workmanship, without cost to the City.

6. LIENS

It is further understood and agreed that in all cases of non-payment by the Contractor of any sums of money due from it to its laborers or other workmen for work performed under this contract, or if at any time there should be evidence of a lien or claim which is chargeable to the Contractor and for which, if established, the City might become liable, the City is hereby authorized and empowered to retain out of any payment then due, or thereafter, to become due, an amount sufficient to completely indemnify the City against any such lien or claim. Before payments are made under this contract, the Contractor shall furnish the City satisfactory evidence that there are no mechanics' liens or other encumbrances on the premises by reason of materials furnished or work or labor done or performed, or ordered by the Contractor. The Contractor shall become and hereby agrees to become responsible to the City for the payment of any sums in liquidation by reason of any liens that may be placed upon the premises by reason of the work or materials furnished or ordered by the Contractor. In the event that the City is put to any expense, or shall suffer as cost by reason of the foreclosure or otherwise on account of any lien which may be placed upon the property of the City in connection with the work contemplated by this contract, the Contractor agrees to reimburse the City for all such expenditures made by it including legal fees and expenses. The Contractor does hereby expressly waive and release any and all liens or rights or claim of lien on the premises on account of labor or material, or both, furnished by the Contractor directly or through subcontractors or material men to or on account of the City for said premises. The City may from time to time, out of funds due or to become due to Contractor under this contract or otherwise, retain such reasonable sums as it may deem necessary for

its protection in its behalf and the Contractor shall pay any deficiency arising therefrom upon demand.

7. PATENTS

The Contractor shall defend and hold the City harmless from any action that may be brought against the City through the use of any patented device or process furnished by the Contractor under its contract.

8. TIME OF COMPLETION

Said work will commence within fifteen (15) calendar days from date of written notice to proceed, and shall progress regularly thereafter, except in the case of strikes, accidents, unavoidable delays, or as otherwise ordered by the City or its Director, and shall be **100% completed on November 30, 2014 with all work completed on June 31, 2015** unless a time extension is granted under the terms of the contract as stated herein. Any time extension, being for any reason either express, as hereinafter provided, or by implication, shall not affect the validity of this contract nor the liability of the surety upon the bond herein mentioned or referred to.

The Contractor shall complete all punchlist items within fifteen (15) calendar days after the City delivers the punchlist to the Contractor. At any time after the fifteenth (15th) calendar day, the City of Fairfax may, at its discretion and in addition to any other rights the Owner may have, complete all or any portion of the punchlist work with forces other than the Contractor's forces, and the Owner may either deduct the costs of this work from funds retained from the Contractor or may charge such costs directly to the Contractor. The Contractor shall, upon demand therefor from the Owner, pay to the Owner any additional costs incurred by the Owner as a result of the Owner's completion of the punchlist work.

9. EXTENSION OF TIME

Should the Contractor be obstructed or delayed in the completion of the work, by any act, neglect, delay or default of the City or the Director, or any other Contractor employed by the City, the time herein fixed for the completion of the work shall be extended for a period equivalent to the time lost by reason of any or all of the causes aforesaid, but **no such allowance shall be made unless a claim therefore is presented in writing to the Director of Public Works within twenty-four (24) hours of the occurrence of such delay.**

10. LIQUIDATED DAMAGES

The Contractor acknowledges and agrees that time is of the essence in performing the Work. If the Contractor fails to achieve Completion by the Date of Completion established herein, as adjusted under the terms of this Contract, then the Contractor shall pay to the City liquidated damages, and not a penalty, of TWO HUNDRED DOLLARS (\$200.00) per day until Completion is achieved. The liquidated damages shall constitute the City's exclusive damage remedy for the Contractor's failure to complete the Work on or before the Date of Completion, but such liquidated damages shall in no way limit the City's entitlement to damages for any injury, damage or loss other than for delay for which the Contractor may be responsible under the terms of this Agreement or under applicable law. Sums due and owing

to the Contractor by the City at the time of Completion shall be reduced by any setoffs to which the City is entitled as liquidated damages. The Contractor shall pay the City any liquidated damages to which the City is entitled, but which are not recoverable by setoff, within thirty (30) calendar days of Completion of the Project.

11. EXTRA WORK

The Contractor agrees that he will do such work as may be required by said City for the proper construction of the whole work herein contemplated and will make no claim for extra work unless it shall have been done in obedience to written order from said City or its duly authorized agent. The Contractor shall file in writing with the Director, before the fifteenth (15th) day of the following month, all claims for extra work done within one month, and the failure to file such claims within such time shall be deemed a waiver thereof, and admission that no such claims exist. The price of such work shall be based on the price bid for similar work in the bidder's proposal, or its actual, reasonable cost for labor, insurance and material as described by the Director of Public Works, provided that in all cases any such extra work shall have been authorized in writing by said City by means of a Work Order.

12. INDEMNIFICATION

The Contractor shall indemnify and hold harmless the City, its elected officials, Architect, Director, Architect's/Engineer's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the Work, including loss of use resulting therefrom.

13. INSOLVENCY OF CONTRACTOR

It is recognized that if the Contractor is adjudged a bankrupt, makes a general assignment for the benefit of creditors, or if a receiver is appointed for the benefit of creditors on account of the Contractor's insolvency, such circumstance could impair or frustrate the Contractor's performance of this Contract. Accordingly, the parties to this Contract agree that upon the occurrence of any such event, the City shall be entitled to request of the Contractor or its successor in interest adequate assurances of future performance in accordance with the terms and conditions of the Contract Documents and the Contractor shall have seven (7) business days to provide such assurances. The Contractor's failure to comply with such request shall entitle the City to terminate this Contract immediately and to the accompanying rights thereunder.

14. ALTERATIONS

The City reserves the right to make alterations in the scope of the project from time to time as the work progresses. No alterations shall be made in the work done or described in said plans and specifications except upon written order of the Director or his designee and when so made, the value of the work added or omitted shall be computed by said Director in conjunction with the Contractor, and the amount so ascertained shall be added to or deducted from the contract price.

15. INSPECTION

The Contractor shall provide safe, sufficient and proper facilities at all times for the inspection of the work by the City or its representatives. The Contractor shall, within twenty-four (24) hours after receiving written notice from the Director or his designee stating that the Contractor has failed to meet this requirement, proceed to remove all materials condemned by him, whether worked or unworked, and take down all portions of the work which the Director or his designee shall by written notice condemn as unsound or improper, or as in any way failing to conform to the drawings and specifications of this contract.

16. TERMINATION BY THE CITY FOR CAUSE

A. The City may terminate the Contract if the Contractor:

- (1) Refuses or fails to supply enough properly skilled workers or proper materials;
- (2) Fails to make payments to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
- (3) Disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or
- (4) Otherwise substantially breaches a provision of the Contract Documents.

B. The City may without prejudice to any other rights or remedies of the City and after giving the Contractor and the Contractor's surety, if any, seven (7) days' written notice, terminate the Contract and may, subject to any prior rights of the surety:

- (1) Take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- (2) Accept assignment of subcontracts;
- (3) Finish the Work by whatever reasonable method the City may deem expedient.

C. When the City terminates the Contract for one of the reasons stated above, the Contractor shall not be entitled to receive further payment until the Work is finished.

D. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's or Director's services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the City. Any obligation for payment shall survive termination of the Contract.

17. SUSPENSION BY THE CITY FOR CONVENIENCE

- A. The City may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the City may determine.
- B. An adjustment shall be made for increases in the cost of performance of the Contract, including profit on the increased cost of performance, caused by suspension, delay or interruption. No adjustment shall be made to the extent:
 - (1) That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
 - (2) That an equitable adjustment is made or denied under another provision of this Contract.

18. TERMINATION BY THE CONTRACTOR

- A. The Contractor may terminate the Contract upon fifteen (15) days' written notice to the City if the Work is stopped for a period of sixty (60) days through no act or fault of the Contractor or a subcontractor, or their agents or employees or any other persons performing portions of the Work under contract with the Contractor. After such a termination by the Contractor, the Contractor may recover from the City payment for Work executed.
- B. If the Work is stopped for a period of sixty (60) days through no act or fault of the Contractor or a subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the City has persistently failed to fulfill the City's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven (7) additional days' written notice to the City, terminate the Contract.

19. SUBCONTRACTING

No part of the work herein provided for shall be subcontracted by the Contractor without the express consent of the Director of Public Works, to be entered in its records, and in no case shall such consent relieve said Contractor from the obligation herein entered into, or change the terms of this agreement.

20. RESPONSIBILITY

In all operations connected with and embraced in this contract, the Contractor shall be held responsible for any failure to respect, adhere to, and comply with such ordinances and laws pertaining to the work, or those engaged therein, or affecting materials or transportation or disposition of same, and the Contractor hereby assumes all liability for and agrees to indemnify the City against all such loss, costs, damages and liabilities for any or by reason or any liens, claims or demands, either mechanics and others, and from any damages, costs, actions, or causes of action, and judgments arising from injuries sustained or otherwise

occurring through the neglect or carelessness of said Contractor, its agents, employees or workmen.

Any person employed on the work who shall be deemed to be incompetent, not productive and contributing to the Work, or shall be guilty of any disorderly conduct, or shall commit any trespass of any public or private property in the vicinity of the work, shall at once be removed from the work by the Contractor, when so requested by the City.

21. DISPUTE RESOLUTION

- A. The resolution of disputes hereunder shall be governed by Sections 2-364(g) and (h) of the Code of the City of Fairfax, Virginia, and Sections 2.2-4363 and 2.2-4364 of the Code of Virginia (1950). Any dispute between Contractor and the City concerning a question of fact as a result of this Agreement which is not disposed of by mutual agreement shall be decided by City's authorized representative, who shall reduce his/her decision to writing and mail or otherwise forward a copy thereof to Contractor within thirty (30) days. The decision of City's authorized representative shall be final and conclusive unless Contractor appeals within six (6) months of the date of the final written decision by instituting appropriate legal action. Contractor may not institute legal action prior to receipt of City's decision on the claim, unless City fails to render such decision within the time specified.
- B. Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty (60) days after final payment; however, written notice of Contractor's intention to file such claim shall have been given within five (5) days of the time of the occurrence or within five (5) days of the beginning of the work upon which the claim is based. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after completion and acceptance of the work or acceptance of the goods. Pendency of the claims shall not delay payment of amounts agreed due in the final payment.
- C. Contractor shall not institute any legal action until the requirements set forth above have been met.

22. INSURANCE

The Contractor shall maintain all of its equipment in good and safe order and condition; and shall at all times fully indemnify, protect and hold harmless the City, its elected officials, officers, employees, and agents from and against any and all costs, charges and claims arising from any act or omission of the Contractor, general contractor, contractors, subcontractors and consultants, including but not limited to, attorney fees, during the term of the contract.

The Contractor shall at all times during the contract period maintain general liability insurance, including bodily injury, personal injury, property damage coverage, automobile liability, employer's liability and worker's compensation and, at a minimum, in the following amounts: general liability insurance coverage in the amount of two million dollars (\$2,000,000) per occurrence, automobile liability coverage in the amount of two million

dollars (\$2,000,000), worker's compensation and employer's liability insurance coverage in the statutory amounts with the City of Fairfax, its elected officials, officers, employees and agents named as additional insureds on such policies, the Contractor shall require, at all times, that all general contractors, subcontractors or consultants performing work under the contract, maintain general liability, automobile liability, worker's compensation and employer's liability insurance coverage, with no less than the same limits required above. The Contractor shall deliver to the City, for review and approval by the City before any work is commenced under the contract, certificates of insurance, of a form acceptable to the City, demonstrating that the insurance coverage required is effective, will be continuing during the course of the work, and that the insurance premiums are paid. Such certificate, among other things, shall indicate that the insurance company shall give thirty (30) days prior written notice of expiration, cancellation, non-renewal or material change in coverage to the City. The Contractor shall have the affirmative obligation, independent of the general contractor, subcontractors and insurance companies, to keep itself and the City informed of all expirations, renewals, cancellations and changes in insurance coverage required of the general contractors, contractors, subcontractors and consultants. The Contractor shall immediately notify the City of any expirations, renewals, cancellations, or changes in such insurance coverage. If the City is required to pay any claim made under the applicable insurance policies, the Contractor agrees to indemnify, pay and reimburse the City for all such claims, including all deductibles, and costs (including attorney fees).

The Contractor shall provide a Certificate of Insurance for its firm and, if subcontractors are used, for specified subcontractors prior to the start of any work under the Contract. The Contractor shall agree to maintain such insurance until the completion of the Contract. The minimum limits of coverage shall be:

A. General Liability

Bodily injury, personal injury and property damage coverage shall be in a combined single limit of not less than One Million Dollars (\$1,000,000.00) per occurrence with a Two Million Dollars (\$2,000,000.00) aggregate or One Million Dollars (\$1,000,000.00) aggregate primary insurance with a One Million Dollars (\$1,000,000.00) excess insurance policy:

- (1) The City of Fairfax, its elected officials, officers, employees, agents and volunteers shall be named as additional insureds.
- (2) The Contractor shall be responsible for any deductibles and/or self-insured retention.

B. Commercial Automobile Liability Insurance

This insurance shall provide bodily injury and property damage coverage for automobiles and Contractor's equipment in a combined single limit of not less than One Million Dollars (\$1,000,000.00) each accident with not less than a Two Million Dollars (\$2,000,000.00) aggregate or a One Million Dollars (\$1,000,000.00) primary limit of liability with an additional One Million Dollars (\$1,000,000.00) excess insurance coverage:

- (1) The City of Fairfax, its elected officials, officers, employees, agents and volunteers shall be named as additional insureds.
- (2) The Contractor shall be responsible for any deductibles and/or self-insured retention.

C. Workers Compensation and Employers Liability

State statutory limits of liability and coverage extending to workers within the Commonwealth of Virginia.

Upon receipt of contract documents from the City, the Contractor shall provide a copy of their NCCI Workers Compensation Experience Rating sheet for the three most recent years. These documents are available directly from NCCI or through the Contractor's Workers Compensation Insurance broker.

D. Builders Risk/Installation Floater

For total contract price with limits of liability to be provided by the Contractor. The City of Fairfax shall be the named insured.

E. Professional Liability

With limits acceptable to the City's Risk Manager pursuant to the services provided.

F. Certificates of Insurance

Certificates of Insurance shall be in a form acceptable to the City's Risk Manager prior to the signing of the Contract, and provide for thirty (30) days' written notice of cancellation, non-renewal or change in coverage.

23. PERFORMANCE OF COVENANTS

The said Contractor for itself, successors and assigns, hereby agrees to the full performance of the covenants herein contained to be performed by said Contractor and the City for themselves and their successors, does hereby agree to the full performance of the covenants herein contained to be performed by the City.

24. BOND

Upon contract award, Contractor shall furnish through an authorized agent a Performance Bond and Labor and Material Payment Bond satisfactory to the City of Fairfax in the full amount of its contract, and in conformity with Section 2.2-4337, Code of Virginia (1950) as amended.

25. GOVERNING LAW

This Agreement shall be governed by and interpreted according to City of Fairfax City Ordinance Code and the laws of the Commonwealth of Virginia.

26. MISCELLANEOUS

In accordance with Section 2.2-4343.1 of the Code of Virginia, the City does not discriminate against faith-based organizations.

In accordance with Section 2.2-3901 of the Code of Virginia, the City does not discriminate on the basis of race, color, religion, national origin, sex, pregnancy, childbirth or related medical conditions, age, marital status or disability.

In accordance with Section 2.2-4312 of the Code of Virginia, for all contracts in excess of \$10,000, the Contractor agrees to the following:

During the performance of this contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

The Contractor agrees to abide by Section 1 of the Special Provisions, which are attached hereto and made a part hereof of this Agreement.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first aforesaid.

APPROVED AS TO FORM:

BY: _____
CITY ATTORNEY

OWNER:

CITY OF FAIRFAX

(SEAL)

BY: _____
NAME: Robert L. Sisson
TITLE: City Manager

Acknowledgment of Officer of Owner

STATE OF VIRGINIA
CITY OF FAIRFAX

ON THIS ____ day of _____, 2014, before me personally appeared **ROBERT L. SISSON**, who by me being duly sworn, did depose and say that he is **CITY MANAGER** of the CITY OF FAIRFAX, that he executed this Contract as such official pursuant to authority vested in him by resolution of the said AUTHORITY and that his signature is so affixed pursuant to that authority.

Notary Public

My commission expires: _____

CONTRACTOR:

NAME: _____

(SEAL)

BY: _____

NAME: _____

TITLE: _____

Acknowledgment by Notary

Select one of the following three sections, whichever applies, and complete:

1. IF A CORPORATION:

STATE OF: _____

COUNTY OF _____

ON THIS _____ day of _____, 20____, before me personally appeared _____, who by me being duly sworn, did depose and say that he is _____ of _____ the corporation named Contractor in this instrument; that he knows the seal of said corporation, that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public

My commission expires: _____

Notary's Registration Number: _____

2. IF A PARTNERSHIP:

STATE OF: _____

COUNTY OF _____

ON THIS _____ day of _____, 20____, before me personally appeared _____, who by me being duly sworn, did depose and say that he is one of the members of the firm of _____ described herein and who executed this instrument, and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public

My commission expires: _____

Notary's Registration Number: _____

3. IF AN INDIVIDUAL:

STATE OF: _____

COUNTY OF _____

ON THIS _____ day of _____, 20____, before me personally appeared _____, who by me being duly sworn, did depose and say that he is sole owner of the firm of _____ described herein and who executed this instrument, and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public

My commission expires: _____

Notary's Registration Number: _____

General City Requirements

1. SUMMARY OF WORK

A. Description

- (1) The work under this contract is described in the Invitation to Bid. All work shall be performed in strict accordance with the drawings and specifications and subject to the terms and conditions of the construction contract.

All work shall be performed in strict accordance with the City of Fairfax City Code, the Virginia Road and Bridge Specifications and Standards, Fairfax County and City of Fairfax Public Facilities Manual, and the specifications, terms and conditions of the construction contract.

- (2) All work covered by these specifications will be let under a single contract.

B. Work by Others

- (1) All construction work, unless otherwise shown or specified for removal, relocation, adjustment of manholes and construction of new facilities required by Dominion Virginia Power will be done by them or their contractor. Relocation of Dominion Virginia Power facilities will be coordinated between the Contractor and Dominion Virginia Power during the conduct of the project.
- (2) All construction work, unless otherwise shown or specified for the removal, relocation, adjustment of manholes and construction of new facilities required by Verizon Telephone Company will be done by Verizon or their contractor. Relocation of Verizon facilities will be coordinated between the Contractor and Verizon during the conduct of the project.
- (3) All construction work, unless otherwise shown or specified for the removal, relocation and construction of new facilities required by the Washington Gas Company will be done by Washington Gas or their contractor.
- (4) All construction work, unless otherwise shown or specified for the removal, relocation and construction of new facilities required by Cox Communications will be done by Cox Communications or their contractor.

According to City ordinance, the Contractor shall have all existing underground utility lines horizontally located prior to the start of excavation and that the exact location of the utility line shall be determined by adequately exposing the utility by hand digging within the proposed limits of the excavation before excavation resumes. To obtain existing utility locations, the Contractor shall call Miss Utility at (800) 810-7197.

C. Field Utility Adjustments by Contractor

- (1) The Contractor shall be responsible for adjusting all sanitary sewer manhole and water valve box tops to finished grade. Cost for this work shall be included in the overall cost of related work. No separate payment item is provided for this work.

- (2) Building sewer laterals damaged by the Contractor shall be repaired at its expense.

D. Incidental Work

It is the intention of the City to obtain a properly constructed project completed in its entirety. Except as otherwise specifically provided by these specifications or by notes on the drawings, all items of work shown on the drawings or specified shall constitute work to be accomplished by the Contractor. Incidental work includes all minor items and shall be a part of this project. The cost of incidental work shall be included in the stated contract price.

E. Availability of the Site

- (1) It is the intention of the City to make available to the Contractor the entire site within the limits of the work and to impose a minimum restriction for the conduct of the work. The Contractor shall coordinate its work to ensure the minimum uninterrupted services of utilities and traffic flow. Existing electrical, telephone and cable facilities now in service shall be required to remain in service until replacement work is complete.
- (2) During the progress of the work, the convenience of the public and the residents along the street must be provided as far as it can practically be maintained wherever possible. Temporary approaches to, and crossings of, intersecting streets and sidewalks must be provided and kept in good condition.
- (3) The Contractor shall contact Miss Utility forty-eight (48) hours in advance of any excavation work in the vicinity of their service mains.

2. SCHEDULES AND REPORTS

A. Construction Surveying

Contractor will provide construction surveying services as necessary:

- (1) Establish field survey control line and temporary benchmarks.
- (2) Provide line and grade offset stakes for new curb and gutter at every fifty (50) foot station, at every twenty-five (25) feet on vertical and horizontal curves, and at all curb return radius points and stations, and furnish cut sheets.
- (3) Provide line and grade survey for new storm sewer pipes and locations of new structures and cut sheets.

- B. The Contractor shall employ qualified personnel to provide whatever additional construction surveys may be required by him for the successful completion of the project.

C. Applicable Standards

- (1) Any material, equipment or workmanship specified by reference to the number, symbol or title of any specific standard shall comply with the latest edition or revision thereof and any amendment or supplement thereto in effect on the date of the plans and specifications except as limited to type, class or grade or as modified in these specifications.
- (2) All work, unless otherwise shown or specified, shall be in strict accordance with applicable portions of the latest edition or revision of the Virginia Department of Transportation Road and Bridge Specifications and the Virginia Department of Transportation Road and Bridge Standards. The Contractor shall obtain and/or review and require its subcontractors to obtain and/or review these referenced specifications and standards as they pertain to this work.
- (3) All work covered by this contract shall be in accordance with the City of Fairfax, Virginia "Soil and Erosion Ordinance" and the latest edition or revision of the Virginia Erosion and Sediment Control Handbook. The Contractor shall obtain and/or review this ordinance as it pertains to this work.
- (4) All work covered by this contract shall be in accordance with the provisions of the latest edition or revision of the "Virginia Occupational Safety and Health Standards for the Construction Industry," as adopted by the Safety and Health Commission of the Commonwealth of Virginia and issued by the Department of Labor and Industry, Richmond, Virginia.
- (5) Electrical work and on-site retaining walls shall be in accordance with the Virginia Uniform Statewide Building Code (USBC). Permits for work governed by the USBC shall be obtained from the Office of Code Administration prior to commencing the work. No fee will be charged for these permits.

D. Easements and Rights-of-Way

- (1) Prior to construction, the City of Fairfax, Virginia will obtain all required easements and rights-of-way for construction of the project. It shall be the responsibility of the Contractor to restore all areas affected by construction, including areas for which easements and rights-of-way have been obtained. Areas requiring restoration work shall be returned as nearly as practical to their original condition prior to construction.
- (2) If required, the Contractor shall obtain releases from the property owners involved and furnish these releases to the City.

3. TEMPORARY FACILITIES

A. Lights, Barricades and Signs

The Contractor shall furnish and install lights, barricades and signs as may be required to protect against injury to its employees and to the public, to protect its work and to protect adjacent structures and properties. Lights, barricades and signs shall be in accordance with the requirements of the City of Fairfax, Virginia and applicable laws of the Commonwealth of Virginia. Barricades shall be removed upon completion of the work.

B. Sheeting, Shoring and Bracing

The Contractor shall furnish and install sheeting, shoring and bracing as may be required to protect against injury to its employees and to the public, to protect its work and to protect adjacent structures and properties. Sheeting, shoring and bracing shall meet the requirements of the City of Fairfax, Virginia and the governing regulations of the Commonwealth of Virginia and the Occupational Safety & Health Act.

C. Traffic Routing

The Contractor shall provide for the maintenance of vehicular and pedestrian traffic as required by the City of Fairfax for work inside the City corporate limits, or by VDOT for work outside the City corporate limits, during the period of construction in order to provide minimum interference with normal operation and traffic flow. No signs, detours, road or lane closures shall be put in place unless approved by the City or by VDOT. The minimum number of lanes to be maintained during peak hours will be as directed by the City street division superintendent or by VDOT. Street openings for the removal of existing pipe and the installation of storm sewers shall be made in accordance with the requirements of the City or VDOT. The compensation for this item shall be included in the unit price for construction items, where applicable.

D. Miscellaneous

Contractor shall provide toilet facilities and drinking and washing water for its employees in a location to be approved by the City.

E. For any work in the right-of-way, within the City's corporate limits, the police department must be notified each working day by the Contractor, (703) 385-7924 or (703) 591-5511.

Site Work

1. General

Comply with the requirements of the construction contract and general requirements.

2. Work Included

Work shall include the furnishing of all labor, materials, equipment and supplies and performing all operations necessary and required for completion of the clearing, demolition, relocation work and stripping of top soil as shown on the drawings and as specified.

3. Clearing and Demolition

(a) General

Clearing and demolition shall include the removal of all trees, stumps, vines, brush, fences, drainage structures, drainage pipes, curbs and gutters, concrete, asphalt flumes, all work for the relocation of signs (except traffic signs, which will be relocated by the Owner), sidewalks and other surface features required to allow for new construction and not designated to remain except as specified hereafter.

(b) Joining Existing Work

Where new work will abut existing work, the Contractor shall sawcut asphalt and concrete to make straight, even cuts and remove material without damage to existing work that must remain. Transition from existing work to new work shall be smooth and even without abrupt change in line or grade.

(c) Limits of the Work

Clearing and demolition operations shall be limited to those areas within the right-of-way lines, easements or the "limits of construction," except as otherwise approved by the Owner.

(d) Ownership of Materials

- (1) The Owner has the option to retain ownership of all manhole frames and covers, valve boxes and similar salvageable materials resulting from the clearing and demolition operations. These items shall be stored at the site for pick up by the Owner.
- (2) All tree stumps, vines, brush and excess excavation, curbs, curb and gutters, asphalt, concrete, drainage structures, pipe, fencing, sidewalks, and other surface features removed during the clearing operation and not suitable for reuse by the Contractor, shall be legally disposed of off the site as a part of this work. Clean up of such debris shall be continuous with the progress of the work. The Owner, at its option, may designate areas within the City for this disposal.

(3) Tree Removal

Trees and stumps that are designated on the plans for removal and any other trees and stumps required to be removed to allow for new construction shall be removed by the Contractor as a part of this work. The Contractor shall be responsible to correct any damages resulting from its tree removal operation at no additional cost to the Owner.

4. Stripping Top Soil

In areas to be graded, top soil shall be stripped and stored for reuse in areas to be seeded.

5. Relocation Work

Work shall include removal and relocation of fences, landscape items, signs and mailboxes as shown to be relocated on the plans. This work shall also include the relocation of existing water meters as shown on the plans and the adjustment of sanitary and storm manhole tops to the final grade elevations.

6. Method of Measurement

No separate measurement of site work items will be made unless the construction scope of work is changed. When the construction limits are significantly changed and the work scope is altered, the Contractor shall submit a Proposal to the Owner for the extra work. No additional work shall proceed until the Owner has approved the Contractor's proposal in writing.

7. Method of Payment

(a) Site Work

Accepted quantities of site work shall be paid for at the contract price as a total lump sum or if no site work item is included on the Bid Form, the Contractor shall include the cost of this work in other work items as applicable.

(b) Payments

The contract lump sum price shall be full compensation for the cost of performing the site work and of furnishing all labor, tools, equipment, materials and incidentals necessary to complete the work.

Earth Work

1. General

Comply with the requirements of the construction contract and general requirements.

2. Work Included

Work shall include the furnishing of all labor, materials, equipment and supplies and performing all operations necessary and required for completion of the site grading, excavation, backfill and soil compaction as shown on the drawings and as specified.

3. Existing Underground Structures and Utilities

Best available data on existing underground structures and utilities in the vicinity of the work are shown on the drawings. Location of underground gas mains and laterals to be the responsibility of the Washington Gas Company. Location of underground telephone facilities to be the responsibility of Verizon or other telecommunications providers, as appropriate. Location of underground electric facilities to be the responsibility of Dominion Virginia Power. The Contractor shall coordinate its work with said companies. The Contractor shall be responsible for assuring that all existing underground structures and utilities adjacent to the work that are not being replaced, remain in service. Any lines damaged during construction shall be repaired immediately as directed, at the Contractor's expense. In the event any underground structures and utilities are found not to be in agreement with the drawings and conflict with the work, the Contractor shall promptly notify the Owner. The Contractor shall be paid for extra work arising from such contingencies as provided for in the construction contract.

This site includes underground facilities and structures placed and maintained as part of monitoring and remediation efforts by a third party. The Contractor shall be responsible for coordinating relocation and maintenance of these structures and facilities with the third party's representative, URS Corporation.

4. Explosives

No explosive shall be used during the construction of this project.

5. Excavation

(a) General

All excavation, grading, cutting and filling shall be performed so as to obtain the finished grade shown on the plans.

(b) Removal of Unsuitable Material

Where excavation to the finished graded section results in a subgrade or slope of unsuitable materials, the Contractor shall excavate such material below the grade shown on the plans or as directed and in the areas so excavated shall be backfilled with approved materials, such as specified for borrow herein.

(c) Surface Drainage

Surface drainage of water shall be maintained during the excavation and grading operations.

(d) Top Soil

The last four (4) inches of material in areas to be seeded shall consist of top soil.

(e) Protection of Properties and Newly Graded Areas

The Contractor shall exercise care so as to protect newly graded areas from damage due to construction operations or from damage due to heavy rains, and shall protect adjacent properties from damage resulting from the construction operation. The Contractor shall promptly repair any damage to newly graded areas or to adjacent properties at no increase in the contract price.

(f) Classification of Material

All excavation shall be unclassified and the term "earth" or "excavation" when used to refer to excavation includes existing clay, silt, sand, mulch, gravel, hardpan, loose shale, loose stones, singularly or in masses, and boulders measuring less than one-half cubic yard in volume and similar materials which can be loosened with pick or shovel or with power equipment normally in use at the site. "Rock" or "rock excavation" shall mean boulders larger than one-half cubic yard in size and ledge rock or similar natural material that cannot be removed by mechanical equipment or power shovel of one-half cubic yard capacity. If rock is encountered within the limits of construction, and is required to be removed, the Owner shall be notified immediately. The Contractor shall not proceed until instructions are given and measurements made for purposes of establishing volume of rock excavation to be allowed for additional payment in accordance with the unit prices established in the bid form. If naturally occurring asbestos is found to exist, Contractor shall stop work immediately and contact the Owner. No work shall proceed until proper measures are in place to monitor and control the release of asbestos. The Owner must also approve a change order for the additional work prior to the continuance of construction.

(g) Structure Excavation

Excavation shall be done accurately to dimensions and elevations shown on the plans plus a sufficient space to allow placement of forms, shoring, bracing and dewatering equipment. Where the bottom of the excavation is found to be of unstable or unsuitable material, such material shall be removed to a sufficient depth to allow suitable bearing and backfilled with gravel or crushed stone and tamped.

(h) Trench Excavation

Excavation for trenches shall be made accurately to dimensions and elevations shown on the plans. Trench shall be of a width to allow at least eight (8) inches of clearance on each side of the pipe barrel. Trench widths shall be no greater than the

pipe barrel plus two (2) feet except as approved by the Owner. Trench sides shall be vertical from the bottom of the trench to a point one (1) foot above the top of the pipe. The trench shall be excavated six (6) inches below the established grade and crushed stone bedding shall be provided up to the center line of the pipe barrel. 21A stone or select material backfill shall be provided from center line of pipe to the top of the trench compacted to 95% V.T.M.-1. The last four (4) inches of backfill shall be top soil in those areas to be seeded. All trenches shall comply with applicable local, state and federal regulations.

(i) Control of Water

The Contractor shall keep excavations free of water during installation of work and as may be required to protect new work, its employees, the public and adjacent structures and properties.

(j) Unauthorized Excavations

If any excavation is caused by the Contractor's error, including the over-excavation of rock or wherever the excavation is carried beyond or below the lines and grades shown on the plans, the Contractor shall refill such excavated space with VDOT-21A crushed stone at no increase in the contract price.

6. Borrow

Borrow, if required, shall consist of approved material required for the construction of embankments or for other portions of the work and shall be obtained from approved sources. Borrow material shall comply with the latest version of the Virginia Department of Transportation (VDOT) Road and Bridge Specifications.

Unless otherwise designated by the Owner, the Contractor shall make its own arrangements for obtaining borrow and pay all costs involved.

7. Backfilling

(a) Structures

Backfill material shall be free of clods, roots, debris, large stones or rocks. Where excavated material is not suitable, the Contractor shall backfill, with crushed stone, VDOT Type I, size 21A and tamp the backfill. Backfill shall be brought up to grade in eight (8) inch layers and compacted to a minimum of 95% of maximum density using mechanical tampers or other approved method.

(b) Backfill

Where excavated material is used for backfill, no measurements will be made. Where crushed stone is furnished for backfill material, the basis of measurement shall be on a per-cubic-yard basis for material in place. The Contractor shall furnish delivery tickets to the Owner with each application for payment.

8. Basis of Payment

(a) Excavation

Accepted quantities of site excavation will be paid for at the contract unit price per cubic yard or as otherwise provided for in the contract documents. Excavation costs for streets, structures, pipes, trenches, curbs and gutters, ditches and paved flumes, driveway entrances and sidewalks, and curb cut ramps shall be included in the unit prices for those items.

(b) Backfilling

Where excavated material is utilized for backfilling, the cost shall be included in the unit price for that particular construction item. The cost of crushed stone for bedding for pipes, structures, curbs and gutters, ditches, paved flumes, driveway entrances, sidewalks and curb cut ramps shall be included in the unit price of that item.

(c) Payments

Payments for the work specified shall be full compensation for the cost of furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work.

Site Drainage and Utility Adjustments

1. Description

Work shall include the furnishing of all labor, materials, equipment, and supplies, and performing all operations necessary and required for completion of the site drainage as shown on the drawings and as specified. Desilting the existing structure and outflow pipe where new pipe is being connected or flushing/removing silt from the existing pipes which are being connected to the new structure shall be included in the bid price. No extra shall be paid for desilting/flushing.

(a) Storm Sewer Drains

(1) Description

Materials, methods of installation and testing of the storm sewers system shall be in strict accordance with the construction specifications and standards of the City of Fairfax, Virginia and the Virginia Department of Transportation, except as otherwise shown on the drawings or specified hereinafter. Reinforced concrete culvert (circular) pipe shall conform to AASHTO specification M-170 for classes 3 and 4 and reinforced concrete culvert arch pipe shall conform to AASHTO specification M-206 for class 4.

(2) Method of Measurement

Method of measurement for pipe lines will be on a per-linear-foot basis for each size and type.

(3) Basis of Payment

Accepted quantities of storm sewer pipe shall be paid for at the contract unit price per linear foot. Bedding, excavation and backfilling of trenches for pipes shall be included in the unit price. The cost of connecting pipe to existing structure, and invert reshaping of existing structure, if required shall be included in the price bid. Payment for the work specified shall be full compensation for the cost of furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work.

(b) Storm Sewer Structures

(1) Description

This work shall consist of constructing drop inlets, manholes, etc. in accordance with VDOT Specifications, Section 302, and Drainage Structures.

(2) Method of Measurements

Drop inlets both new and reconstructed will be measured as a complete unit of the type and class specified including frame and grate and/or manhole frame and cover.

Manholes will be measured as a complete unit of the size as specified including standard casting, frame and cover. The Contractor has the option to construct manholes type MH-1 in lieu of precast manholes without any additional cost.

(3) Basis of Payment

Accepted quantities of drop inlets and manholes shall be paid for at the contract price per each; however, the unit price will be adjusted at a rate of five percent (5%) per foot for increase or decrease in depth indicated on the plans. No adjustment in the unit price will be made for changes amounting to less than 0.5 foot height of a single drop inlet or manhole. The cost of connecting existing pipes, invert shaping, steps if required, excavation and backfilling shall be included in the price bid for the structures. Payment for the work specified shall be full compensation for the cost of furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work.

2. Utility Adjustments

(a) The Contractor shall be responsible for adjustments of water valve boxes, monitoring wells, recovery wells and sanitary sewer manhole tops to finished grade and relocation of light poles (not owned by Dominion Virginia Power) for parking areas to be done as directed by the Owner.

(b) Water meters, monitoring wells, recovery wells, meter pits, valves and appurtenances shall not be removed, tampered with or disturbed, without the prior approval of the Owner and the City of Fairfax Utilities Department.

(c) Method of Measurement

The work performed for adjustment of the utilities/relocation of light poles will be measured by each unit of the actual number adjusted/relocated.

(d) Basis of Payment

Payment for adjustment of utilities/relocation of light poles will be made at contract unit prices, as applicable, for each number adjusted/relocated including all materials, labor, tools, equipment and incidentals necessary to complete the work.

Roadways and Pavements

1. General

Comply with the requirements of the construction contract and general requirements.

2. Work Included

Work shall include the furnishing of all labor, materials, equipment and supplies and performing all operations necessary and required for completion of the subgrade preparation, pavement structure, curbs and gutters, curbs, standard entrances, median strips, sidewalks, steps and related items as shown on the drawings and/or as specified. No construction covered by this section of the specifications shall begin until all clearing, grading, earthwork and compaction in the specific area has been completed as specified. Where new curbs and gutters, curb, sidewalks and median strips abut the existing, the existing shall be saw cut. Where the new pavement abuts the existing pavement, the existing bituminous surface shall be saw cut for one and one-half (1½) feet to provide smooth joint as shown on drawing or specified. No extra payment will be made for saw cutting.

3. Reference Specifications

- (a) All drainage structures shall conform to the Virginia Department of Transportation (VDOT) standards as specified on the drawings, except as otherwise shown on the drawings or specified.
- (b) All steps, curbs and gutters, curbs and sidewalks shall conform to the latest VDOT Road and Bridge Standards, and the details shown on the drawings.
- (c) All driveway entrances shall conform to the latest City of Fairfax Standards or VDOT Standards, as applicable.

4. Subgrade Preparation

- (a) The entire subgrade area, including the area under curbs and gutters and sidewalks shall be compacted to 95% of maximum density, using V.T.M.-1, as determined by AASHTO T-99. Subgrade preparation, construction and equipment shall be in accordance with applicable portions of Section 305, "Subgrade and Shoulders," of the VDOT Specifications.
- (b) After pavement removal and excavation to approximate subgrade, the subgrade material shall be proof-rolled using pneumatic-tired rollers or heavy trucks and shall be compacted using pneumatic-tired rollers or sheeps foot rollers to 95% of maximum density as determined by AASHTO T-99. When compaction requirements cannot be met because of unsuitable or unstable material, the material shall be removed to a sufficient depth so that when backfilled with select material and compacted the specified requirements are achieved.
- (c) Existing base course material excavated in preparing the subgrade may be used as select material in the subgrade, at no addition in price, if the excavated material can be compacted to the degree specified.

- (d) The Owner, at its option and expense, may have compaction tests performed on the completed subgrade prior to authorizing placement of the base course. If tests show unsatisfactory compaction, the City may require the Contractor, at no addition in contract price, to provide additional compaction and/or furnish additional material until the specified degree of compaction is obtained.

- (e) Method of Measurement

No separate measurements for subgrade preparation will be made.

- (f) Basis of Payment

For preparation of subgrade, no separate payment will be made.

5. Select Material

- (a) Select material where required shall conform to Section 207, "Select Material," of the VDOT Specifications for

Type 1, 2 or 3. Select material shall be placed and compacted as herein specified for subgrade.

- (b) Method of Measurement

Select material will be measured in units of cubic yards and will be determined by compacted measurements on the road.

6. Aggregate Subbase Course

- (a) The aggregate subbase course material shall conform to Section 208, "Subbase and Aggregate Base Materials," of the VDOT Specification for Type 1, sizes 21, 21-A or 21-B. Materials shall be placed to the depth shown on the plans and compacted to 95% of maximum density as determined by AASHTO T-99. Methods of construction and equipment shall conform to Section 308, "Subbase Course," of the VDOT Specifications, paragraph 308.01 to 308.04.

- (b) The Owner, at its option and expense, may have compaction tests performed on the completed subbase course prior to authorizing placement of paving. If tests show unsatisfactory compaction, the Owner may require the Contractor, at no addition in contract price, to provide additional compaction and/or furnish material until the specified degree of compaction is obtained.

- (c) Measurement and Payment

Aggregate subbase course will be measured in cubic yards, as specified, and will be paid for at the contract unit price per cubic yard. The quantity will be determined by compacted measurements on the road unless otherwise specified.

7. Asphalt Concrete

(a) General

Asphalt concrete milling shall be constructed to the depths and section as specified in the bid documents or as shown on the drawings, as applicable, and be in accordance with VDOT Specifications Section 315, "Asphalt Concrete Pavement."

(b) Any pavement cut during construction shall be saw cut.

(c) Material shall conform to the applicable requirements of Section 210, "Asphalt Materials," and Section 211G, "Asphalt Concrete Mixtures (SUPERPAVE)," Sections 211.01-211.15 of the VDOT Specifications.

(d) Asphalt concrete base course shall be Type IM-19.0A.

(e) Tack coat shall be Type SRS-1 or SRS-1H applied at the rate of 0.05 to 0.15 gal. per square yard (depending upon surface condition). Tack coat shall be applied in accordance with the requirements of Section 310, "Tack Coat," and Section 315, "Asphalt Concrete Pavement," of the VDOT Specifications.

(f) Prime coat shall be Type SRS-1 applied at the rate of 0.20 gal., or current VDOT Specifications, per square yard. Prime coat shall be applied in accordance with the requirements of Section 311, "Prime Coat," of the VDOT Road and Bridge Specifications.

(g) Asphalt concrete surface course shall be Type SM-9.5A for residential roads and SM-9.5B for main roads.

(h) Milling pavement shall be in accordance with Section 515, "Planing Pavement" of the VDOT Road and Bridge Specifications.

(i) Construction

Asphalt concrete paving shall be constructed in accordance with Section 315, "Asphalt Concrete Pavements," of the VDOT Specifications. Tack coat shall be applied ahead of the paving operation with sufficient time interval to ensure maximum adhesion of the surface course to the base course.

(j) Measurement and Payment

Asphalt concrete surface and base will be measured in tons and paid for at the contract unit price per ton. This price shall include milling, disposal of milled asphalt, preparing and shaping the subgrade or subbase, constructing and finishing shoulders and ditches, and removing and replacing unstable subgrade or subbase, prime and tack coat applications, and pavement planing. Net weight information will be furnished with each load of material delivered in accordance with the requirements of Section 211 of the VDOT Road and Bridge Specifications.

8. Sidewalks

(a) General

Sidewalks shall be constructed in accordance with specifications and details shown on the drawings as specified. Concrete sidewalks shall be four (4) inches thick with four (4) inches of 21A base and shall be constructed in accordance with Section 504, "Sidewalks, Steps and Handrails" of the VDOT Specifications.

(b) Method of Measurement

Sidewalk will be measured in square yards of finished surface.

(c) Basis of Payment

The accepted quantities of sidewalk will be paid for at the contract unit price per square yard. The payment of the contract unit price shall be full compensation for all materials, concrete, gravel, labor, tools and incidentals necessary to complete the items of work.

9. Curb, Gutters and Combination Curb and Gutter, Paved Ditches and Flumes, Driveway Entrances and Ramps

(a) General

Curbs, gutters and combination curb and gutter, paved ditches and flumes, driveway entrances and ramps shall be constructed with the locations and details shown on the drawings and as specified.

(b) Curbs, Gutters and Combination Curb and Gutter, Paved Ditches and Flumes, Driveway Entrances and Ramps

Cement concrete curbs, gutters and combination curb and gutter, paved ditches and flumes, driveway entrances and ramps shall be constructed in accordance with Section 502, "Incidental Concrete Items," of the VDOT Specifications.

(c) Method of Measurement

Radial/standard curbs and combination curb and gutter, and paved ditches and flumes will be measured in linear feet. Standard entrance gutter driveway will be measured in square feet. Ramps will be measured per unit in place.

(d) Basis of Payment

The accepted quantities of asphalt, curb, gutter and combination curb and gutter and paved ditches and flumes will be paid for at the contract price per ton for asphalt and per linear foot for curb and gutter in place. Where the curb and gutter is adjacent to curb inlets, the unit price for the inlets shall include that part of the curb and gutter within the limits of the structure. The unit price for curb, gutter and combination curb and gutter and paved ditches and flumes shall include excavation, backfill, gravel base (6", 21A), compaction and disposal as necessary for the proper construction of

these items. Unit prices shall be full compensation for all materials, labor, tools, equipment and incidentals necessary to complete the work.

10. Median Strips and Directional Island Curbs

(a) General

Median strips and directional island curbs shall be constructed with the locations and details shown on the drawings and as specified.

(b) Reference Specifications

Median strips and directional island curbs shall be constructed in accordance with Section 502, "Incidental Concrete Items," of the VDOT Specifications.

(c) Method of Measurement

Median strips for each specified width will be measured in linear feet. Directional island curbs will be measured along the face of the curb.

(d) Basis of Payment

The accepted quantities of median strips and directional island curbs will be paid for at the contract unit price per linear foot complete and in place. The unit price shall include for all excavation, removal of existing pavement when required, disposal of surplus material, backfill, gravel base (six inches, 21A) and compaction as necessary for construction. Unit prices shall be full compensation for all materials, labor, tools, equipment and incidentals to complete the work.

Concrete

1. General

Comply with the requirements of the construction contract and general requirements and Virginia Department of Transportation (VDOT) design.

2. Work Included

Work shall include the furnishing of all labor, materials, equipment and supplies and performing all operations necessary and required for completion of the concrete work as detailed on the drawings and as specified.

3. Materials

- (a) Aggregate: Fine and coarse aggregate for concrete shall conform to ASTM C33.
- (b) Portland Cement: Portland cement shall conform to ASTM C150 Types I or III.
- (c) Water: Water used in mixing concrete shall be clean and free from injurious amounts of oil, acids, alkali, salts, organic materials or other substances that may be deleterious to concrete or steel.
- (d) Curing Materials: Curing materials shall be fifteen (15) pounds building paper or polyethylene sheeting of minimum four (4) millimeter thickness (Section 404.13).
- (e) Expansion Joint Material: Expansion joint material shall be pre-molded expansion joint filler, non-extruding, bituminous type.
- (f) Forms: Wood, metal or plywood. "Removing Formwork," Section 404.03(j) or Table IV-2.
- (g) Reinforcement: Reinforcing bars shall conform to ASTM 615, grade 60 and deformed according to ASTM A305.
- (h) Welded Wire Fabric: Welded wire fabric shall conform to ASTM 185 for sizes indicated on the drawings.

4. Design Strength

Concrete for this project shall have a minimum strength of 2,450 psi and 3,500 psi compression strength of seven (7) and twenty-eight (28) days respectively. All concrete for this project shall be air entrained. Concrete shall be placed in accordance with ACI 615, "Recommended Practice for Measuring, Mixing and Placing Concrete."

5. Method of Measurement

No measurement of concrete will be made.

6. Basis of Payment

No separate payment for concrete will be made. The cost thereof shall be included in the cost of other items of work.

7. Test Cylinders:

- (a) General: Test cylinders may be required by the Owner during the conduct of the project. The Contractor shall furnish the concrete, assist in obtaining test cylinders and field cure cylinders where required.
- (b) Field Test Cylinders: Field test cylinders shall be obtained in accordance with ASTM C172, made and cured in accordance with ASTM C31, and tested in accordance with ASTM C39. Laboratory test cylinders shall be made and cured in accordance with ASTM C192.
- (c) Tests: Tests shall be made by a qualified commercial laboratory approved by the Owner and paid for by the Contractor.
- (d) Rejection: The Owner may reject all or any part of concrete when the test cylinders indicate a low strength concrete. The Owner may elect to accept the low strength concrete. The Owner will be entitled to reduce the payment for that structure based on a ratio of the design strength and test strength.

Soil Preparation, Seeding and Erosion and Sediment Control

1. General

Comply with the requirements of the construction contract and the general requirements as shown on the plans and the latest edition of the Virginia Erosion and Sediment Control Standards.

2. Work Included

Work shall include the furnishing of all labor, materials, equipment and supplies and performing all operations necessary and required for completion of the soil preparation, placement of top soil, seeding and installation and maintenance of erosion and sediment controls and maintenance of graded areas as specified. All newly graded areas and areas disturbed by the Contractor during the construction operations shall be seeded.

3. Soil Preparation

Areas to be seeded shall be brought to grade as shown on the drawings and shall be cultivated by disc, harrow or rake to a depth of at least two (2) inches. Large stones, clods and lumps shall be removed from the site. The Contractor shall apply two (2) inches of commercial grade top soil on all areas to be seeded.

4. Lime

After completion of the soil preparation, the Contractor shall apply one hundred (100) pounds of ground limestone per one thousand (1,000) square feet to the area to be seeded. If required, the Contractor shall furnish the Owner copies of the delivery slips indicating total quantities provided.

5. Fertilizer

After application of the lime, the Contractor shall apply fifty (50) pounds of 5-10-5 fertilizer per one thousand (1,000) square feet to the area to be seeded. If required, the Contractor shall furnish the Owner copies of the delivery slips indicating quantities provided.

6. Seeding

(a) Prior to seeding, the applied lime and fertilizer shall be worked into the soil by disc, harrow or rake.

(b) The seed shall be as follows:

Type	Mixture	Purity	Germination
Kentucky 31 Tall Fescue	70%	98%	90%
Merion Kentucky Bluegrass	15%	85%	75%
Common Kentucky Bluegrass	15%	85%	75%

(c) Application

The seed mixture shall be applied at the rate of five (5) pounds per one thousand (1,000) square feet. All seed containers shall be tagged indicating mixture, purity and germination, and if requested, copies of the delivery slips indicating quantity shall be provided to the Owner.

7. Mulch

Mulch shall be spread over the seeded areas to a uniform depth of one and one-half (1½) inches loose measurement. Mulch shall be straw or other approved mulching materials.

8. Maintenance

The Contractor shall maintain the seeded areas until the Owner grants final acceptance of the project. Maintenance shall consist of providing protection against traffic, providing inlet protection as shown on plans and/or providing other measures in accordance with the City of Fairfax, Virginia "Soil Erosion Control Ordinance," and the latest edition of the Virginia Erosion and Sediment Control Standards. Work shall include providing protection against damage by water run-off, reseeding, watering and mowing as necessary to produce an acceptable stand of grass. If an acceptable stand of grass is not developed before submission of the final bill, the Owner shall be entitled to withhold from the final payment, a sum that will assure completion of the work specified. The final payment will be released when an acceptable stand of grass is achieved.

9. Method of Measurement

No measurement will be made for seed, topsoil, fertilizer, lime, mulch, inlet protection and soil erosion control measures.

10. Basis of Payment

The accepted quantities of seeded area, top soil and erosion and sediment control measures will be paid for at the contract price as a total lump sum under the "Restoration and Soil Erosion Control" item on the Bid Form. This price shall be full compensation for furnishing and applying all materials, labor, equipment and incidentals necessary to complete the work as well as maintenance of the seeded areas and erosion and sediment control measures as specified until final project acceptance. Where restoration or replacement of seeded areas is necessary because of the use of improper materials or construction methods, or because of damage inflicted by construction activities, the corrective work shall be performed at the Contractor's expense.

Traffic Control and Mobilization

1. Traffic Control

(a) General

Contractor is responsible for safe traffic flow through construction area and shall control the area of construction with barricades, certified flagmen, cones, directional flashing arrows, signs, etc., flashing caution lights on barricades will be required at all times, per VDOT Specifications, Section 512, "Maintaining Traffic." Variable message boards will be required for work on all main roads and/or as required by the street superintendent at no extra cost.

Two-way traffic is to be maintained at all times. The minimum number of lanes to be maintained will be as directed by the Owner.

(b) Method of Measurement

Quantities of traffic control shall not be measured.

(c) Basis of Payment

The pay item for Traffic Control is Lump Sum (LS).

2. Mobilization

(a) Description

This work shall consist of the performance of construction preparatory operations as specified in Section 513 of VDOT Specifications, "Mobilization."

(b) Method of Measurement

Quantities of mobilization shall not be measured but be included in the overall compensation provided for in the work items.

(c) Basis of Payment

No separate payment item is provided for this work. Cost for this work shall be provided for in related work items, as applicable.

Cast-in-Place Concrete

PART 1 – GENERAL

1.1 Description

This section specifies cast-in-place concrete including formwork, reinforcement, concrete materials, placement procedures, finishes and other items related to cast-in-place concrete.

The work covered by this section of the specifications consists of furnishing all plant, labor, equipment, and materials and performing all operations in connection with the construction of reinforced and non-reinforced concrete structures, curb and gutters, sidewalk, and stairs, complete, and in strict accordance with this section of the specifications and the applicable drawings and subject to the terms and conditions of the contract.

1.2 Quality Assurance

A. Qualifications:

1. Installer: An experienced installer who has completed concrete work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful performance.
2. Manufacturer: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment. Manufacturer must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities.

B. Tolerances:

Tolerances are non-cumulative and most restrictive tolerance governs. Tolerance limits noted are maximum deviations (plus or minus) on each side of intended line:

1. Deviation from plumb:
 - a. In lines and surfaces of columns, piers, walls:
 1. In any length: 1 in 500 but not less than 1/8 IN.
 2. In any story: 3/8 IN.
 3. Maximum for entire length: 3/4 IN.
 - b. Deviations from true plane of concrete surface exposed to view caused by bulging of form facing material between supports:
 1. 3/16 IN or 1/300 of span between supports whichever is smaller.
 - c. Deviation from established position in plan of linear walls:
 1. In any length: 1 in 500, but not less than 1/8 IN.

2. Maximum for entire length: 3/4 IN.

d. Deviation in steps/stairs:

1. In flight of stairs:

Rise: 1/8 IN.

Tread: 1/4 IN.

2. In consecutive steps:

Rise: 1/16 IN.

Tread: 1/8 IN.

3. Deviation from level for any step or landing:

1 in 1000 but not more than 1/8 IN.

1.3 Submittals

A. Product Data:

1. Design Mixtures: For each concrete mixture. Include alternate mixture designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

B. Shop Drawings:

1. List of concrete materials and mix design
2. Copies of manufacturer's specifications for proprietary material and items including admixtures and bonding agents
3. Drawings for fabrications, bending and placement of concrete reinforcement including bar schedule, stirrup spacing, bent bar diagrams, arrangements and assemblies.

C. Project Information:

1. Material Test Reports: Reports are to be submitted from a qualified testing agency indicating and interpreting test results for with contract requirements.
2. Material Certificates: Signed by manufacturers certifying that each of the following materials complies with requirements:
 - a. Cementitious materials.
 - b. Steel reinforcement and reinforcement accessories.
 - c. Fiber reinforcement.
 - d. Admixtures.
 - e. Curing compounds.
 - f. Applied finish materials.
 - g. Bonding agent or epoxy adhesive.
 - h. Joint fillers.
3. Field quality-control test reports.

PART 2 - PRODUCTS

2.1 Concrete Material

A. Classification:

1. Concrete for manhole bases and roof slabs, curbs, curb and gutter, sidewalk, stairs, concrete ditches, cast-in-place drainage structures, concrete driveways and sidewalks shall be Class A-3.
2. Concrete cradles and encasement shall be Class B-2.
3. Concrete for replacement pavements on State Highways shall conform to the requirements of the Virginia Department of Transportation (VDOT).
4. Concrete for VDOT Standard Retaining Walls, types RW-2 and RW-3, shall be Class C-1, unless otherwise shown on the plans.

B. Materials:

1. Cement shall conform to the requirements of VDOT Specification Sections 214 and 217. Only one brand of cement shall be used in any individual structure unless the requirement is waived by the Engineer. Manufacturer's certificate shall be furnished for each shipment of cement.
2. Cement for high-early-strength shall be high-early-strength Portland cement conforming to the current ASTM Designation. High-early-strength shall be used only when specifically authorized by the Engineer. The seven day compressive strength of concrete of any class, when made with high-early-strength cement, shall be at least equal to the specified minimum 28-day compressive strengths for that class. Manufacturers certificate shall be furnished for each shipment of cement.
3. Fine Aggregate shall conform to the requirements of VDOT Specification Section 202 for Grading A.
4. Course Aggregate shall be gravel conforming to the requirements of VDOT Specification Section 203 for the class of concrete being produced.
5. Water for concrete shall be clean, clear and free from oil, acid, alkali or other deleterious substances.

C. Strength:

Concrete shall be proportioned and mixed for the following strength:

<u>Class</u>	<u>Minimum allowable compressive strength at 28 days</u>
A-4	4,000 psi
A-3	3,000 psi
B-2	2,200 psi
C-1	1,500 psi

D. Proportioning:

Concrete shall be composed of cement, fine aggregate, coarse aggregate and water so proportioned and mixed as to produce a plastic, workable mixture in which the minimum cement content and maximum water content for the respective classifications shall not exceed the following: .

<u>Type</u>	<u>Minimum Cement Content</u>	<u>Maximum Water Content</u>
A-4	635 lbs per Cu. Yd.	286 lbs per Cu. Yd.
A-3	588 lbs per Cu. Yd.	288 lbs per Cu. Yd.
B-2	494 lbs per Cu. Yd.	287 lbs per Cu. Yd.
C-1	423 lbs per Cu. Yd.	300 lbs per Cu. Yd.

E. Mixing:

1. The concrete shall be mixed in a batch mixer so designed as to positively insure a uniform distribution of the material throughout the mass.
2. Machine-Mixed at Site: For concrete batched on the job, the mixer shall be operated in accordance with the manufacturer's recommendation. The minimum time of mixing for each batch shall be 1 1/2 minutes.
3. Ready-Mixed Concrete: Ready mixed concrete shall be mixed concrete delivered to the designated point ready for use. No water shall be added to the batch until the work is ready to receive the concrete. The mixer shall be operated in accordance with manufacturer's recommendations and the minimum mixing time shall be 1 1/2 minutes.

- F. A signed certificate shall be furnished to the Engineer with each load of concrete giving the cubic yards of concrete, the weight separately of the cement, sand, and gravel and the amount of water to be added to produce concrete of the required strength.

2.2 Reinforcing Steel

The Contractor shall furnish and install all reinforcement, including rods, fabric and structural shapes, as indicated on the plans, or otherwise required. All reinforcement bars for concrete shall conform to the requirements of the current

ASTM Designations. Unless otherwise indicated, all bars shall be Type II (deformed) steel of 40,000 psi yield point. All welded wire fabric reinforcement shall conform to current ASTM. When placed in the work, steel reinforcement shall be free from dirt, paint, oil or other foreign substances.

For each structure, the Contractor shall prepare a reinforcing bar schedule and bending diagrams accompanied by a scale drawing showing the placement of the bars. The Contractor shall not order any materials until he has received Engineer's approval of the reinforcing bar schedule and bending diagrams. The bars shall be furnished in bundles, tagged and clearly identified in accordance with the approval schedule.

Steel reinforcement shall be protected at all times from damage and corrosion; and when placed in the work shall be free from dirt, detrimental scale, paint, oil and other foreign substances that would interfere with the bond between steel and concrete. No reinforcement shall be used that has been damaged.

The Contractor shall notify the Engineer when reinforcement has been installed. No concrete shall be poured until the Engineer or his representative has inspected and approved the installation.

A. Material: Steel reinforcement shall conform to the requirements of ASTM A615 and VDOT Specification Section 223 except as noted herein:

1. Bars shall be deformed bars, unless otherwise specified.
2. Bars shall be made by the open-hearth, electric furnace, or basic oxygen process.
3. Bars shall be of Grade 40 or 60 steel unless otherwise specified.
4. Bars deficient in sectional area within the tolerance shall develop the full strength required for the nominal section.
5. Epoxy coated reinforcing steel shall meet the requirements set herein and be coated in accordance with AASHTO M284.

B. Welded wire mesh shall conform to the requirements of ASTM A 185 and shall be furnished in flat sheets of the dimensions, spacing, and wire size as shown on the drawings. All wire mesh shall be supported on chairs or continuous bar supports at maximum 2' on-center intervals to ensure correct placement depth and achieve minimum concrete cover. Other approved types of mesh reinforcement may be used upon written permission by the Engineer.

C. Unless otherwise designated, stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar; other bars shall be bent around pins having a diameter not less than six times the minimum thickness except for bars larger than one inch in diameter in which case the bends shall be made around a pin having a diameter not less than eight times the minimum thickness.

PART 3 – EXECUTION

3.1 Excavation

- A. Prior to the erection of form work or placing of concrete, the excavation shall be dewatered with equipment capable of continually holding the excavation in such a manner that water will not come in contact with the concrete for a minimum period of 24 hours following any concrete placement. Contractor shall control the quantity of water entering the excavation and divert it into side trenches and sumps, well removed from the structure so as to prevent any intermixing, displacement, or flowing along the extremities of the concrete.
- B. All sheeting, bracing, and shoring placed in the excavation shall be arranged so that a minimum of interference will result in the placing and stripping of forms, or in placing of concrete, or in the performance of any part of the work. No concrete will be placed on a frozen foundation, or when conditions are unsuitable for such work, and when ordered by the Engineer, the foundation shall be covered with building paper or polyethylene plastic or other approved materials and payment for this shall be included in the unit price of the facility involved and no extra payment will be made.
- C. Contractor shall examine the substrate and notify the Engineer of any unsatisfactory conditions. Verify that earthwork is completed to the correct line and grade.

3.2 Forms

- A. Forms for surfaces exposed to view shall have a mortar tight form liner of an approved type such as plywood or metal or other smooth-faced composition materials, constructed with a minimum of joints, and arranged so that a" markings are symmetrical. Other forms requiring a minimum of touch-up or surface finishing shall be used. Any joint protrusions with external angles shall be beveled or chamfered. Unless otherwise designated, forms for exposed surfaces shall extend two (2) feet below ground line or one (1) foot below water. Forms shall conform to ACI301 and to the shape, line, and dimensions of the concrete structure as shown on the drawings.
- B. Forms shall be metal, mortar tight, and sufficiently braced and tied so that they will maintain the desired shape and integrity when placing and vibrating the concrete. All forms shall be inspected and approved by the Engineer or his representative prior to placing concrete. The forms shall be maintained so as to prevent opening of joints. The inside of all forms shall be coated with approved oil that will prevent bonding and will not adhere to or stain the concrete surfaces. Forms shall be designed so that they may be readily removed without creating spalling or damage to the concrete.
- C. Forms shall be straight, free from warp and of such construction that there will be no interference of the inspection of alignment and grade. Forms shall be mortar-tight and sufficiently rigid to prevent displacement. All forms shall

be braced and secured sufficiently so that no deflection from alignment of grade will occur. .

- D. Joints shall be made at locations shown on the drawings and a" vertical joints shall be plumb and squared, and all horizontal joints shall be level and matched throughout.
- E. Metal ties or anchorages within the forms shall be so constructed as to permit their removal to a depth of at least two (2) inches from the face without injury to the concrete. A" fittings for metal ties shall be of such design that upon their removal the cavities that are left will be the smallest possible size.
- F. Forms and supports shall not be removed without the approval of the Engineer. In general, forms may be removed when job-cured, concrete cylinders have been tested to strengths as indicated in VDOT Specification Section 217 for the type concrete used in the work, provided that no loads are to be supported other than the dead weight of the structure. If high-early strength cement is used, these periods may be reduced as directed.
- G. The Contractor shall exercise care not to damage or spall the concrete in the removal of forms. Methods of form removal likely to cause over-stressing of the concrete shall not be used. Supports shall be removed in such a manner so as to permit the concrete to uniformly and gradually take the stresses due to its own weight.
- H. Immediately upon the removal of forms. the Contractor shall notify the Engineer and no patching or touching-up will be permitted prior to his inspection. The Engineer shall direct the extent and manner of all repairs including the replacement of any part of the work if necessary.
- I. Forms and finished concrete work shall comply with tolerances noted in Section 1.2B of these specifications.

3.3 Rebar Placement

- A. All reinforcing steel shall be accurately placed in position as shown on the drawings and secured against displacement during the pouring and consolidation of concrete.
- B. Bars shall be tied at all intersections with #18 gauge annealed wire or clips and supported with metal chairs, spacers, and hangers, or cast concrete blocks specifically intended for this purpose.
- C. Metal chairs which are in contact with the exterior face of concrete shall be galvanized.
- D. The clearance between reinforcing steel and exterior of concrete shall be in accordance with the plans, but in no case shall it be less than two inches, and the minimum overlap for splicing bars shall be forty (40) diameters.
- E. Wire mesh shall be overlapped a minimum of one wire mesh and then fastened at the end. Splicing will not be permitted unless shown on the

drawings or otherwise approved by the Engineer; splices shall be staggered insofar as possible.

3.4 Concrete Placement

- A. Before depositing concrete, verify that installation of formwork, reinforcement, and embedded items are complete and that required inspections have been performed. Ensure all sawdust, chips, dirt and other debris, and all temporary struts and braces are removed from the space to be occupied.
- B. Concrete shall be deposited as soon as possible after mixing and in no instance will concrete be used when mixing time has exceeded the limitations set forth in VDOT Specifications. No additional water shall be added to the mix after the start of concrete placement.
- C. Concrete shall be deposited as nearly as possible in its final position to avoid rehandling and in such a manner as to prevent the segregation of aggregates, displacement of reinforcement, and movement or failure of forms.
- D. Concrete shall be placed in continuous layers approximately 12 inches in depth in accordance with VDOT Specifications Section 404, except where operations are to be discontinued at construction joints.
- E. In any given layer the separate batches shall follow each other so closely that each one shall be placed and consolidated before the proceeding one has taken an initial set in order that the green concrete shall not be injured and that there shall be no line of separation between the batches.
- F. Each layer of concrete shall generally be left somewhat rough to secure sufficient bonding with the next layer to be consolidated in a manner that will entirely break up and obliterate the tendency to produce a construction joint between the layers.
- G. Layers completing a day's work or placed just prior to temporarily discontinuing operations shall generally be cleared of all objectionable material as soon as the surface has become sufficiently firm to retain its form. To avoid visible joints as far as possible upon exposed faces, the top surface to the concrete adjacent to the form shall be smoothed with a plaster masons trowel.
- H. The use of long chutes will not be permitted for conveying concrete from truck or mixer to the forms unless permission is granted by the Engineer. Troughs, pipes, and short chutes may be used in depositing concrete provided that no segregation of the ingredients takes place and a free drop of 3 vertical feet is not exceeded. When steep slopes are required, the chutes shall be equipped with baffle boards or be in short lengths that reverse the direction of movement in such a manner as to prevent segregation of the aggregate. Where pipes are used, they shall be kept full of concrete and have their lower ends buried in fresh concrete. All troughs,

pipes, and chutes shall be metal or metal lined and shall be kept clean and free from coatings of hardened concrete by thoroughly flushing with water after each run. Water used for flushing shall be discharged clear of the excavation.

3.5 Consolidation

The consolidation of concrete shall be constructed so as to form a compact, dense, impervious mass of uniform texture which shall show smooth faces on exposed surfaces. Care shall be taken to fill each part of the forms, to work the coarser aggregates back from the forms, and immediately after depositing shall be thoroughly consolidated by mechanical vibrators subject to the following conditions:

- A. The vibration shall be internal to the concrete, but not applied to reinforcement or form work.
- B. Vibrators shall be of a type and design approved by the Engineer. They shall be capable of transmitting vibration to the concrete at frequencies of not less than 6,000 rpm.
- C. The Contractor shall provide a sufficient number of vibrators to properly consolidate each batch immediately after it is placed in the forms.
- D. Vibrators shall be manipulated so as to thoroughly work the concrete around the reinforcement and imbedded fixtures and into the corners and angles of the forms. Vibration shall be applied to the point of deposit and in the area of freshly deposited concrete. The vibrators shall be inserted and withdrawn from the concrete slowly. The vibration shall be of sufficient duration and intensity to thoroughly consolidate the concrete, but shall not be continued at anyone point to the extent that localized segregation occurs or areas of grout are formed.
- D. Application of vibrators shall be at points uniformly spaced and not further apart than twice the radius over Which the vibration is visibly effective.
- E. Vibration shall not be applied directly or through the reinforcement to sections of layers of concrete which have been hardened to the degree that the concrete ceases to be plastic under vibration. It shall not be used to make concrete flow in the forms over distances so great as to cause segregation, and vibrators shall not be used to transport concrete in the forms.
- G. Vibration shall be supplemented by such spading as is necessary to insure smooth surfaces and dense concrete along form surfaces and in corners and locations inaccessible to the vibrators.
- H. Vibrating equipment shall not be dragged across the concrete so as to avoid segregation of the aggregate.
- I. When in the opinion of the Engineer vibrating is not practical, the concrete shall be consolidated by continuous working with a suitable tool in a manner acceptable to the Engineer.

3.6 Joints

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated when joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
 - 1. Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
 - 2. Provide tie bars at sides of pavement strips where indicated.
 - 3. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
 - 1. Locate expansion joints at intervals of 50 feet, unless otherwise indicated.
 - 2. Extend joint fillers full width and depth of joint.
 - 3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 - 4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 - 5. Furnish joint filters in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
 - 6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groove marks on concrete surfaces.

2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise -- damage surface and before developing random contraction cracks.
 3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.
- E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 114-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.
- F. Waterstops shall be provided as required in accordance with VDOT Section 212.

3.7 Concrete Protection and Curing

- A. New concrete shall be covered and protected from damage due to rain, frost, freezing, high temperature, excessive winds, premature drying or other weather conditions that would impair the concrete strength or surface finish. The Contractor shall remove and replace concrete so damaged, at no additional cost, when directed by the Engineer.
- B. Concrete surfaces that are exposed to conditions that would cause premature drying shall be cured over a seven (7) day period by sealing the surface with a vapor proof material or by covering the surface with a suitable material that will readily retain moisture. Both processes shall be carried out in a manner that will prevent evaporation and loss of water from the exposed surfaces during the curing period. When high-early strength concrete is used, the curing period may be reduced to two (2) days.
- C. The sealing of exposed surfaces with vapor proof materials shall be performed with liquid membrane or polyethylene sheets or paper, meeting the requirements in VDOT Specification Section 220, or with other suitable materials approved by the Engineer. The methods for placing the materials shall conform with VDOT Specification Section 404.
- D. Water curing of concrete surfaces shall be accomplished with wetted quilts or burlap or other suitable material that shall be applied to the surfaces when the concrete has set sufficiently to prevent marring. The covering material shall be maintained in a wetted condition and shall show the presence of water on the surface during the curing period.

3.8 Concrete Placement Limitations

The Contractor shall be responsible for quality control of any concrete placed in any weather or atmospheric conditions. At time of placement, concrete shall have a temperature in accordance with the following:

Class A3 concrete used for construction of sidewalks, steps, curb, curb and gutter and other incidental items, except retaining walls shall be at least 40 degrees but not more than 95 degrees Fahrenheit.

Class A3 concrete used in pavement *and/or* driveway entrances containing an approved water reducer shall have a temperature of at least 40 degrees but not more than 95 degrees Fahrenheit.

All other concrete, including that used for retaining walls, shall have a temperature of at least 40 degrees but not more than 90 degrees Fahrenheit.

A. Cold Weather Placement:

1. The Contractor shall comply with ACI 306 and submit in writing and receive the Engineer's approval as to the method proposed for protecting concrete to be placed when the air temperature has fallen or is expected to fall below 40°F. The Contractor shall take such precautionary measures as are necessary to prevent damage to the concrete from frost action and freezing.
2. In cold weather, water and aggregates may be heated to no more than 150°F to maintain concrete temperature. Materials shall be heated uniformly. Cement shall not be heated. Heating equipment or methods that prevent entrainment of air in concrete shall not be used. Materials containing frost, lumps, crusts, or hardened material shall not be used.
3. The air temperature around the poured concrete shall be maintained at 50°F or higher for a period of six (6) days for Type I cement and 3 days for high early strength cement. No concrete shall be placed when the atmospheric temperature at the site is 40°F or lower without written permission from the Engineer, and in all instances the Contractor shall be prepared to adequately cover and insulate the work and provide required heat to maintain the temperature at 50°F for the prescribed period. Dry heating will not be permitted and the heating apparatus shall be so placed as to avoid rapid drying in localized areas and excessive temperatures in the work.

B. Hot Weather Placement:

When hot weather conditions exist, concrete shall be placed in accordance with the recommendations of ACI 305R and as follows:

1. Cool ingredients before mixing to maintain concrete temperatures below 90 F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is the Contractor's option.
2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.

3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.9 Finishing Concrete Surfaces

Unless otherwise designated on the drawings, all exposed surfaces that are visible shall receive a Class II finish. All exposed and un-exposed surfaces not visible, including the inside of box culverts shall receive a Class I finish. Sidewalks and stairs shall receive a Class 7 finish. Chamfer all exterior corners and edges of permanently exposed concrete structures.

A. Class I, Ordinary Surface Finish:

1. Immediately following the removal of forms, all fins and irregular projections shall be removed from the surfaces. On surfaces, the cavities produced by form ties and all other holes, honeycomb spots, broken corners or edges, and other defects shall be thoroughly cleaned, and after having been kept wetted for not less than three (3) hours, shall be carefully pointed and trued with a mortar of cement and fine aggregate mixed in the proportions used in the grade of the concrete being finished. Mortar used in pointing shall be not more than one (1) hour old. The mortar patches shall be cured as specified in VDOT Specification Section 404. All construction and expansion joints in the completed work shall be left carefully tooled and free of all mortar and concrete. The joint filled shall be left exposed for its full length with clean and true edges.
2. The resulting surfaces shall be true and uniform. All surfaces which cannot be repaired satisfactorily shall be "rubbed" as specified for Class II,

B. Class II, Rubbed Finish:

1. After removal of forms, the rubbing of concrete shall be started as soon as its condition will permit. Immediately before starting this work, the concrete shall be kept wetted for a minimum of three (3) hours. Sufficient time shall have elapsed before the wetting to allow the mortar used in the pointing of rod holes and defects to thoroughly set. Surfaces to be finished shall be rubbed with a medium coarse Carborundum stone using a small amount of mortar on its face. The mortar shall be composed of cement and fine sand mixed in the proportions used in the concrete being finished. Rubbing shall be continued until all form marks, projections and irregularities have been removed, all voids filled, and a uniform surface obtained. The paste produced by this rubbing shall be left in place at this time.
2. After all concrete above the surface being treated has been cast; the final finish shall be obtained by rubbing with a fine Carborundum stone and water. Rubbing shall be continued until the entire surface has a smooth texture and uniform color. After the final rubbing is completed and the surface has dried, it shall be rubbed with burlap and shall be left free of all unsound patches, paste, powder, and objectionable marks.

C. Class 7, Sidewalk and Stairs Finish:

After concrete has been placed and consolidated the surface shall be struck off with a striker board and floated with wooden or cork floats. Light metal marking rollers may be used if desired after the initial set. An edging tool shall be used on edges and at all joints. The surface shall have a granular texture that will not be slick when wet.

D. Tolerances:

Finished concrete work shall comply with tolerances noted in Section 1.2B of these specifications.

E. Repair of Surface Defects:

1. Repair surface defects immediately after form removal. Remove honeycombed and other defective concrete down to sound concrete. Chip if necessary to make edges perpendicular to surface or slightly undercut. No feather edges will be permitted. Dampen area to be patched and an area at least 6 in wide surrounding it to prevent absorption of water from patching compound. After surface water has evaporated from area to be patched, brush bonding agent into surface. When bonding agent begins to lose water sheen, apply patching compound. Thoroughly consolidate compound into place and strike off so as to leave patch slightly higher than surrounding surface. To permit initial shrinkage, leave undisturbed for at least 1 hour before final finish. Keep patched area damp for 7 days. Do not use metal tools in finishing a patch which will be exposed.
2. Tie holes: Unless stainless steel, non-corrosive, or acceptably coated ties are used, tie holes shall be filled. Clean and thoroughly dampen tie holes; fill solid with patching compound.

3.10 Damp-proofing

- A. When specified in the Special Provisions or shown on the drawings, concrete surfaces shall be dampproofed with two or more coats of tar or asphalt, as directed.
- B. Asphalt shall conform to the requirements of ASTM 0449, Type II, and primer shall conform to the requirements of AASHTO M116.
- C. The surface to which the dampproofing is to be applied shall be cleaned of all loose, foreign material and dirt and shall be dry. When necessary, the Engineer may require the surface to be scrubbed with water and a stiff brush, after which it shall be allowed to dry before application of the primer.
- D. The clean surface shall be brush or spray painted with two or more coats of tar or asphalt, as indicated on the plans or in the Special Provisions, for prime treatment. Below ground not less than two coats shall be applied, using one-eighth (1/8) gallon for each square yard of surface. On the primed surface one application of tar or asphalt seal coat shall be applied by brush, using one-tenth (1/10) gallon per square yard.

- E. Care shall be taken to confine all tar or asphalt to the areas to be dampproofed and to prevent disfigurement of any other parts of the structure by dripping or spreading. Where joints are to be dampproofed the materials shall be thoroughly brushed in to insure an adequate seal. Where the face of joints are to be dampproofed care shall be taken not to coat exposed reinforcing bars.

3.11 Drainage or Weep Holes

Drainage or weep holes shall be provided on all structures as shown on the drawings, in accordance with VDOT standard drawings, or as directed by the Engineer. All holes shall be straight, smooth, circular, unobstructed and properly positioned in the structure. Weep holes equal to four (4) inches in diameter or larger shall be lined with concrete, PVC or vitrified clay pipe. Weep holes less than four (4) inches in diameter shall be formed in the structure with a suitable material that may be removed after the concrete has obtained an initial set.

3.12 Tests

Concrete cylinders shall be made and tested in accordance with current ASTM Specifications. Concrete cylinders shall be formed and tested by a certified materials testing lab under contract with Fairfax County unless otherwise directed and noted in the Contract Documents.

3.13 Measurement and Payment

Measurement and payment shall conform to the stipulation of the specific item in which the use of concrete is specified and in accordance to unit prices in the Schedule of Unit Prices.

Scope of Work

MILLING AND PAVING OF CITY STREETS FOR FISCAL YEAR 2015

The Contractor agrees to furnish all materials and labor and construct, build and in every respect complete the **Milling and Paving of City Streets** during the City's Fiscal Year 2015, which will include, but not be limited to:

Schedule of Unit Prices

Milling and Paving of City Streets for FY 2015

Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
1	Milling 2" - full width	152,080	SY		
2	SM-12.5E Asphalt Concrete 2" thickness (Main Roads)	4,680	TON		
3	SM-9.5A Asphalt Concrete, 2" thickness (Residential Roads)	11,364	TON		
4	Milling 4" - base repair (Approximately 2,000 Square Yards)	2,000	SY		
5	BM25A Base Asphalt 4" for Base Repairs	422	TON		
6	Asphalt Speed Bumps	5	EA		
7	Stamped Asphalt Cross Walks	200	SY		
8	4" Yellow Thermoplastic Marking (solid)	31,920	LF		
9	4" White Thermoplastic Marking (solid)	15,960	LF		
10	24 " White Thermoplastic Markings (solid)	2,690	LF		
11	Snowplowable Raised Pavement Markers (white/red)	1,460	EA		
12	Directional Arrows	23	EA		
13	Combination Arrows	10	EA		
14	(37) 6' x 30' Traffic Loops	6,660	LF		

TOTAL BID FOR

Milling and Paving of City Streets for FY 2015:

\$_____

**FISCAL YEAR 2015
PAVING LIST**

MAIN ROADWAYS

Street	From	To
UNIVERSITY DRIVE	FAIRFAX BOULEVARD	WOOD ROAD
MAIN STREET	FAIRFAX BOULEVARD	JUDICIAL DRIVE
CHAIN BRIDGE ROAD	WEST DRIVE	CITY LINE
ROBERTS ROAD	MAIN STREET	CITY LINE
UNIVERSITY DRIVE	NORTH STREET	MAIN STREET

**RESIDENTIAL
ROADWAYS**

Street	From	To
STRATFORD AVENUE	CHAIN BRIDGE ROAD	CUL-DE-SAC
WALNUT STREET	MAIN STREET	FAIRFAX BOULEVARD
QUEEN ANNE DRIVE	OLD LEE HIGHWAY	CUL-DE-SAC
JOYCE DRIVE	LA MARRE DRIVE	CUL-DE-SAC
EGAN DRIVE	WOODHAVEN DRIVE	FAIRCHESTER DRIVE
CANFIELD STREET	CHAIN BRIDGE ROAD	DEAD END
POPLAR STREET	MAIN STREET	DEAD END
THAYER COURT	FAIRCHESTER DRIVE	CUL-DE-SAC
SCHOOL STREET	UNIVERSITY DRIVE	CHAIN BRIDGE ROAD
LAYTON HALL DRIVE	OLD LEE HIGHWAY	DEAD END
CREST STREET	WOODHAVEN DRIVE	CUL-DE-SAC
VIRGINIA STREET	MAIN STREET	FOREST AVE
LEONARD DRIVE	JUDICIAL DRIVE	MAPLE STREET
OAK STREET	FAIRFAX BLVD	MAIN STREET
TOWLSTON ROAD	STRATFORD AVENUE	CUL-DE-SAC
BROOKWOOD DRIVE	OLD LEE HWY	SPRING LAKE TERRACE
AUTUMN COURT	CREST STREET	CUL-DE-SAC
SCOUT DRIVE	HILL STREET	CAVALRY DRIVE
COUNTRY HILL DRIVE	OLD LEE HWY	CUL-DE-SAC
BROOKWOOD DRIVE	OLD LEE HWY	COLONY ROAD
ARMSTRONG STREET	SIDEBURN ROAD	UNIVERSITY DRIVE
SERVICE ROAD - FAIRFAX BOULEVARD	CITY LINE	FAIRFAX CIRCLE
Service Road - MAIN STREET	In Front of COMSTOCK	
JEAN STREET	UNIVERSITY DRIVE	STAFFORD DRIVE
CORNELL ROAD	OLD LEE HIGHWAY	ST ANDREWS DRIVE

Additional Requirements

Plus all associated work for the City. All materials to be furnished and all work to be done in strict accordance with the "Instructions to Bidders," "Invitation to Bid," "Special Provisions" and "General Requirements"; the bid or proposal of the said Contractor, hereto attached and made a part of this agreement; and the documents and codes referred to and made a part of this agreement, and declared and accepted as an essential part of the same (the "Work").

All of said work shall be done and all materials furnished under the supervision and direction of and to the full satisfaction and acceptance of the City or a duly authorized agent thereof and including the following:

1. Two-way traffic must be maintained at all times.
2. Access to the commercial businesses must be maintained at all times.
3. All lanes must be open and covered with asphalt by 5:00 AM Monday through Friday and 8:00 AM Saturday and Sunday.
4. Working hours are as follows:

Sunday through Thursday:	8:00 p.m. to 5:00 a.m.
Friday through Saturday:	9:00 p.m. to 8:00 a.m.
5. The Contractor must schedule the milling and overlay in such a manner that the asphalt overlay follows the milling operations as closely as possible not to exceed 24 hours.
6. The Contractor must ensure that dirt backfill and asphalt restoration occurs on the day following the pour.
7. The Contractor must provide the City, two weeks in advance, with a project schedule which will allow the City to make all of the necessary community contacts. The Contractor will distribute public relations materials to any areas affected by either lane closures or traffic signal operations.
8. The Contractor shall contact Miss Utility of Virginia in order to allow for proper marking of work areas, and coordinate any digging activity with all utility companies as required by the marking.
9. The Contractor shall protect all drainage structures so that no foreign materials, including milled materials, enter such structures. In the event that such material should enter or otherwise restrict the performance of such drainage structures, the Contractor shall be responsible for the immediate removal of such materials, at no additional cost to the City.
10. After milling operations, the Contractor shall temporarily place an asphalt taper around the utility covers and tie-ins to prevent a hazard to the traveling public.
11. All milling performed on this contract shall be done in such a manner as to retain the existing cross slope of the roadway, unless otherwise directed by the City of Fairfax.

12. The Contractor shall contact all utility companies to inform them of the paving project and to coordinate all necessary adjustments.
13. Debris and other excess materials from milling and paving and staging operations which accumulate in the curb lines and medians shall be cleaned up and removed prior to the end of each work day.
14. Variable message boards must be used one (1) week prior to the commencement of milling and paving operations.
15. Temporary pavement marking will be required throughout the duration of the project and the permanent pavement markings must be installed within five days of the final paving operation.
16. Cores must be taken for the E-Mix sections of the roadway paving.
17. E-Mix can be changed to D-Mix if agreed upon by the City.
18. A Tack Truck must be on-site the entire duration of the paving operations.
19. A Vacuum Truck must be on-site during the milling and paving operations.
20. A Mobile Transfer Vehicle may be requested by the City during paving operations.
21. A Contractor supervisor must be on site while milling and paving is in progress.
22. The Contractor shall contact the City of Fairfax Sign and Signal department in order to allow for proper marking of work zones in the vicinity of any traffic signals, and coordinate any digging activity with the department as required by the marking.
23. The Contractor shall contact the City of Fairfax Sign and Signal Department, and the City of Fairfax Police Department at least 48 hours in advance to communicate any intended traffic signal operation interruption and arrange for any needed work zone assistance including but not limited to Police Officer traffic control.
24. The Contractor shall complete the City of Fairfax Department of Public Works Right-of-Way / Easement Permit Package and provide Site Specific traffic control plans for any work taking place in an active roadway.

General Terms and Conditions *(some items may be repeated from above)*

The City of Fairfax reserves the right to reject any and/or all bids received as a result of this IFB. If a bid is selected, it will be the most advantageous regarding quality of service, qualifications and capabilities of the service providers, speed and availability of delivery of the work product, and other factors considered important to the City.

Bids must be signed by an official authorized to bind the Contractor to its provisions for a period of at least 120 days. Failure of an otherwise successful bid to accept the obligations of the contract will result in cancellation of any award anticipated.

Should it become necessary to revise any part of the IFB, addenda will be provided, and deadlines may or may not be extended.

Bids should demonstrate the bidder's professional capabilities, provide past project experience, and outline in detailed form the scope of work anticipated.

1. Submission of Bids

- A. When bids are mailed in, not identified as specified, the bidder takes the risk that the envelope may be inadvertently opened and the information compromised, which may cause the bid to be disqualified. The City reserves the right to declare such a bid as non-responsive.
- B. All prices and notations must be in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrections may be made. Corrections must be initialed and dated in ink by the person signing the bid.
- C. In case of an error in price extension, the firm fixed unit price shall govern.

2. Late Bids

Late bids will be returned to the bidder UNOPENED if the bidder's return address is shown.

3. F.O.B. Destination

Quotations to be F.O.B. destination. If otherwise, show exact cost to deliver. Bid unit price on quantity specified, extend and show total.

4. Firm Pricing for City Acceptance

Bid price must be firm for City acceptance for sixty (60) days from the bid opening date.

5. Authority to Bind Firm in Contract

Bids must give full firm name and address of the bidder. Failure to manually sign the bid may disqualify it from being considered. Person signing bid should show TITLE or AUTHORITY TO BIND THE FIRM IN A CONTRACT.

6. Withdrawal of Bids

A bidder may withdraw his bid from consideration if the bid price is substantially lower than the other offers due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity or of work, labor, or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder must give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure. Any claim of a bidder for withdrawal shall be governed by section 2.2-4365 Code of Virginia, as amended, which is incorporated herein by reference.

7. Exemption from Taxes

The City of Fairfax is exempt from State Sales Tax and Federal Excise Tax. A Tax Exemption Certificate is available upon request.

8. Samples

Samples of items, when required, must be furnished free of expense to the City and if not called for within fifteen days from date of bid opening, same will be disposed of to the best interest of the City.

9. Delivery

- A. Time of delivery or performance of services is a part of the consideration and must be stated in definite terms in the space provided on the bid form.
- B. The right is reserved to purchase in the open market and charge any difference to the vendor in the event delivery or completion is not made at agreed specified time, unless written extension has been previously granted by the purchasing agent.

10. Rights of City

- A. The City reserves the right to reject any or all bids/quotations, to accept any items thereon, to waive technicalities or informalities, and to make the award to the most responsible bidder after final negotiations have been reached.
- B. When more than one bid is offered by any one firm or agent, by or in the name of his clerk, partner, or other agent or representative, the City reserves the right to reject all such bids.

11. Employment Discrimination by Contractors Prohibited

In every contract over \$10,000 the provisions in A. through E. below apply:

- A. During the performance of a contract, the Contractor shall agree that he will not discriminate against any employee or applicant for employment because of race,

religion, color, sex or national origin, age, disability or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. A faith-based organization contracting with the city (i) shall not discriminate against any recipient of goods, services, or disbursements made pursuant to a contract authorized by Code of Virginia Sec. 2.2-4343.1 on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and (ii) shall be subject to the same rules as other organizations that contract with the city to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the city. Nothing in clause (ii) shall be construed to supersede or otherwise override any other applicable state law.

- B. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- C. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
- D. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- E. The Contractor will include the provisions of the foregoing paragraphs in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon such subcontractor or vendor.

12. Immigration Reform and Control Act of 1986

- A. By submitting a bid, the bidder certifies that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986.

13. License Requirement

All firms doing business in the City of Fairfax are required to be licensed in accordance with the City's Business Professional, and Occupational Licensing (BPOL) Tax Ordinance. Questions concerning the BPOL Tax should be directed to the Office of Commissioner of the Revenue, 703-385-7884.

14. Payment of Taxes

All bidders located or owning property in the City of Fairfax shall assure that all real and personal property taxes are paid prior to submitting a bid. The City will verify payment of all real and personal property taxes by the successful bidder prior to the award of any contract.

15. Insurance

A. When noted "**REQUIRED**" on the front page of this IFB, within 15 calendar days from notification of contract award, the Contractor is to supply the City with evidence of having and maintaining proper and complete insurance, specifically workers' compensation insurance in accordance with the laws of the State of Virginia, public liability and property damage. All premiums and cost shall be paid by the Contractor. The Contractor further certifies that these insurance coverages will be provided during the entire term of the contract, with 30 days' notice of cancellation, renewal or any other change in coverage including non-renewal.

B. Insurance Coverage and Limits Required

Minimum limits of coverage for contractors and subcontractors, if used, prior to the start of work under the contract:

- (1) Workers' Compensation - Standard Virginia Workers' Compensation Policy
- (2) Broad Form Comprehensive General Liability - \$10,000,000 per occurrence combined single limit for bodily injury and property damage coverage to include:
 - Premises - Operations;
 - Products/Completed Operations
 - Contractual; Independent
 - Contractors; Owners and Contractor
 - Protective; Personal Injury (Libel, Slander, Defamation of Character, etc.)
- (3) Automobile Liability - \$2,000,000 Combined Single Limit

The City of Fairfax, its officials, employees, agents and representatives shall be named as additional insured's.

16. Hold Harmless Clause

The Contractor agrees to indemnify, defend and hold the City of Fairfax, its officials, employees, agents and representatives harmless from all suits, actions, or claims of any kind, including attorney's fees, brought on account of any personal injuries, damages, or violations of rights, sustained by any person or property in consequence of any neglect in safeguarding contract work or on account of any act or omission by the Contractor or his employees, or from any claims or amounts arising from violation of any law, bylaw, ordinance, regulation or decree. The Contractor agrees that this clause shall include claims involving infringement of patent or copyright.

17. Method of Payment

Upon receipt of invoice and upon final inspection and acceptance, the City will render payment within thirty (30) days. Invoices shall be submitted to:

City of Fairfax
Accounts Payable
10455 Armstrong Street
Fairfax, Virginia 22030

Or electronically at: AccountsPayable@fairfaxva.gov

****PLEASE NOTE: The City may pay some or all invoices via Purchase Cards (MasterCard)****

18. Requirements of Bonds

- A. BID BOND - When noted "**REQUIRED**" on the front page of this IFB, a certified check or bid bond in the amount of 5 percent of the total bid shall accompany the bid.

When noted "**REQUIRED**" on the front page of this IFB, within fifteen (15) days from notification of contract award (in excess of \$50,000) the successful bidder shall furnish the following:

- B. PERFORMANCE BOND in the sum of the contract amount conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications and conditions of the contract, and
- C. PAYMENT BOND in the sum of the contract amount conditioned upon the prompt payment for all labor, materials, public utility services and rental of equipment used in the prosecution of the work for the contract.

The bonds shall be made on official forms furnished by the surety company, executed by the Contractor and a surety company authorized to do business in Virginia in accordance with the laws of Virginia and the rules and regulations of the State Corporation Commission. The bonds shall include authorized signatures and titles in order to be considered properly executed.

In lieu of payment or performance bonds, the Contractor may furnish a certified check or cash escrow in the face amount required for each of the bonds that will be held for the full statutory period as applicable for each bond.

19. Statement of Disclaimer

The Statement of Disclaimer must be executed and returned with the bid.

20. Ethics in Public Contracting

The bidder expressly warrants that the price or prices quoted herein are not the result of an agreement or understanding expressed or implied, with any other bidder or bidders.

21. Clarification of Terms

Failure to observe the above General Contract Terms and Conditions will constitute grounds for rejection of your bid. Verify your quotation before submission as it can only be withdrawn or corrected after opening under circumstances described above under **"Withdrawal of Bids."** Any questions about the specifications or other solicitation documents should be directed to the City Agent whose name appears on the face of this IFB no later than five (5) working days before the due date. Any revisions to the solicitation will be made only by addendum issued by the purchasing office and posted on the City website.

22. No Bid Status

If you do not quote, return the IFB form marked **"NO BID"** and state the reason. Otherwise, your name may be removed from our bidder's list.

23. Use of Brand Name or Equal

Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article that the City of Fairfax, in its sole discretion, determines to be equal to that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. The bidder is responsible to clearly and specifically indicate the product being offered and to provide sufficient descriptive literature, catalogs, and technical details to enable the City of Fairfax to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Normally in competitive sealed bidding, only the information furnished with the bid will be considered in the evaluation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid non-responsive. Unless the bidder clearly indicates in its bid that the product offered is an "EQUAL" product, such bid will be considered to offer the brand name product referenced in the solicitation.

24. Condition of Items

All items quoted shall be new, in first class condition, including containers suitable for shipments and storage, unless otherwise indicated in the IFB. Verbal agreements to the contrary will not be recognized.

25. Substitutions

No substitutions or cancellations are permitted without prior written approval by the City Agent.

26. Anti-Trust

By entering into a contract, the bidder conveys, sells, assigns, and transfers to the City of Fairfax all rights, title and interest in and to all causes of the action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the City of Fairfax under said contract.

27. Contract Documents

The contract entered into by the parties shall consist of the IFB, the signed bid submitted by the Contractor, the City of Fairfax's Standard Purchase Order/Contract, and all terms and conditions, all of which shall be referred to collectively as the Contract Documents.

28. Changes to the Contract

The City may order changes within the general scope of the contract at any time by written notice to the bidder. The bidder shall be compensated for any additional costs incurred as a result of such order. Said compensation shall be determined by mutual agreement between the parties in writing.

29. Contractual Disputes

- A. Contractual claims, whether for money or other relief, shall be submitted to the Purchasing Office in writing no later than sixty (60) days, after final payment; however, written notice of the Contractor's intention to file a claim for compensation above that required by the contract shall be given at the time of occurrence or beginning of work upon which the claim is based. If such notice is not given, any claim for additional compensation or time extension arising from or related to such occurrence or work shall conclusively be deemed waived. The Contractor shall continue performance during the pendency of any claim or dispute and following any decision thereon. The Purchasing Official shall render a final decision on any claim within sixty (60) days of its submission or within one hundred twenty (120) days after final payment, whichever is later. Failure by the Purchasing Official to render a decision shall be deemed a denial of the claim as of the latest date a response was required.

30. Hazardous Substances

- A. If the items or products requested by this solicitation are "Hazardous Substances" as defined by the 3.1-250 of the Code of Virginia (1950), as amended, or .1261 of Title 15 of the United States Code, then the bidder, by submitting his bid, certifies and warrants that the items or products to be delivered under this contract shall be properly labeled as required by the foregoing sections and that by delivering the items or products the bidder does not violate any of the prohibitions of 3.1-252 of the Code of Virginia or Title 15 U.S.C. .1263.
- B. Material Safety Data Sheets and descriptive literature shall be provided on all toxic or hazardous substances. Failure on the part of the bidder to submit such data sheets may be cause for declaring the bid as non-responsive.

31. Class A or B Contractor

When note "**REQUIRED**" on the front page of this IFB, the bidder shall show evidence of having a license to engage as a Class A or B contractor in Virginia.

32. Precedence of Terms

In the event there is a conflict between any of the General Terms and Conditions and any

Special Terms and Conditions, the Special Terms and Conditions shall apply.

33. Drug-free Workplace

During the performance of this contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For this purpose, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

34. Cooperative Procurement (use of this contract by other public bodies)

This procurement is being conducted by the City in accordance with the provisions of 2.2-4304 of the Virginia Public Procurement Act (VPPA). Except for contracts for architectural and engineering services, if agreed to by the Contractor, other public bodies may utilize this contract. The Contractor shall deal directly with any public body it authorizes to use the contract. The City, its officials and staff are not responsible for placement of orders, invoicing, payments, contractual disputes, or any other transactions between the Contractor and any other public bodies, and in no event shall the City, its officials or staff be responsible for any costs, damages or injury resulting to any party from use of a the City contract. The City assumes no responsibility for any notification of the availability of the contract for use by other public bodies, but the Contractor may conduct such notification. The Metropolitan Area Council of Governments (COG) rider clause is attached at the end of this document.